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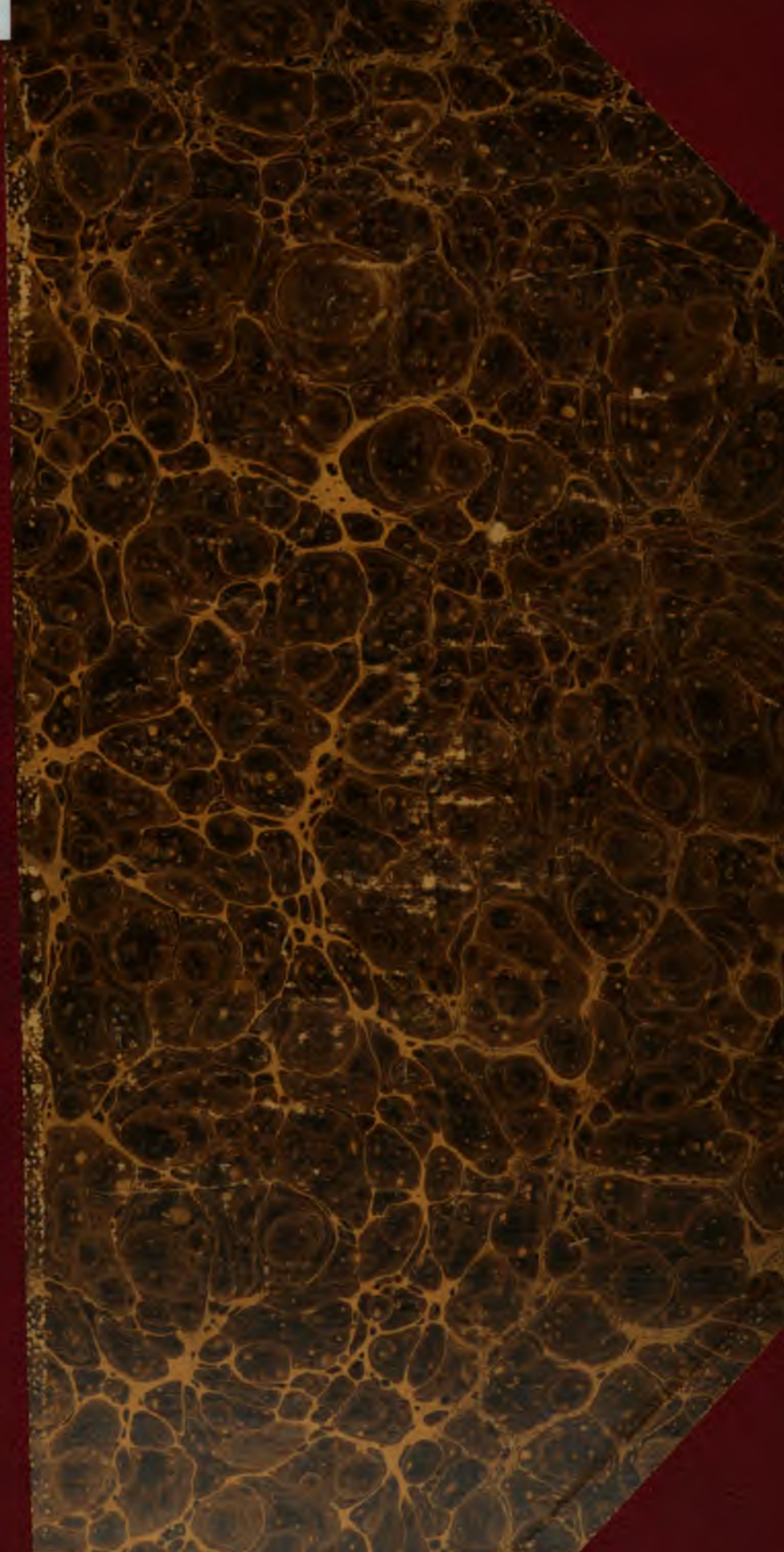
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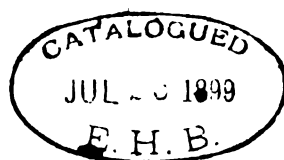
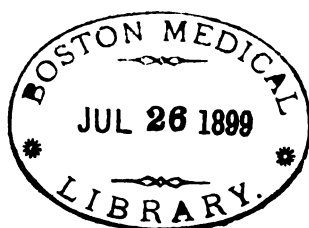
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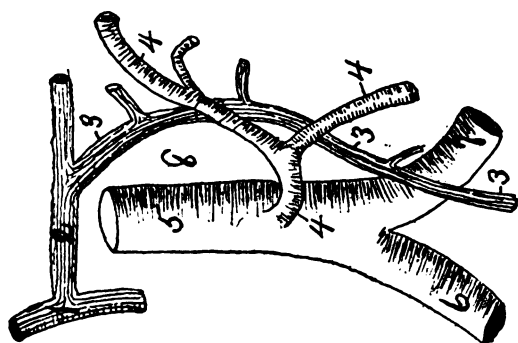


Fig. 1.

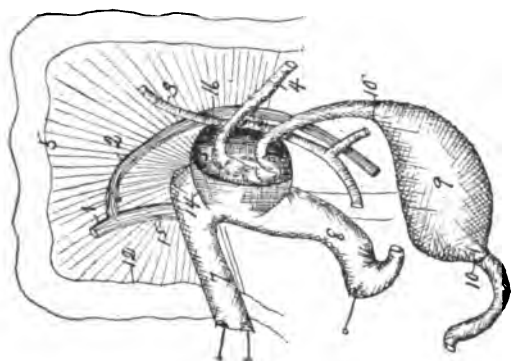


Fig. 2.

TO ILLUSTRATE DR. ROBINSON'S ARTICLE.

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### Original Articles.

## INTRA-ABDOMINAL HERNIA AND PERITONEAL POCKETS, WITH REPORT OF A CASE.

BY BYRON ROBINSON, B. S., M. D.,

Professor of Gynecology in the Chicago Post Graduate Medical School  
and Polyclinic.

Out of some four hundred personal post-mortems I noted the peritoneal pockets (recessus peritonei) in about three hundred cases. We found in three hundred observed cases one case of intra-abdominal hernia in the *fossa duodeno-jejunalis*. Fifty years ago anatomists began to describe peritoneal pockets. The first really scientific description of the peritoneum was by Prof. Huschke in 1844 in Sommering's "*Handbuch der Eingeweide*." Huschke described and named the *fossa duodeno-jejunalis*. In the same year (1844) Hensing described and named the inter-sigmoid fossa. Toward the '50s and '60s began the description of the peritoneal fossæ by Luschke, Waldeyer, Treitz, Langer and some others. I know of no subject in anatomy over which so much difference exists as over peritoneal pockets. Every author thinks his description is the one to adopt. In 1857 Treitz wrote a work on retro-peritoneal hernia quoted by almost every writer on the subject since, but it is almost impossible to find a writer who ever saw the book. It is out of print, but after three years of search we have finally secured a copy of this justly

celebrated work. Treitz, as quoted, had peculiar views of the formation of the peritoneal pockets by a kind of locomotion of the large and small intestines as they developed, what we now perhaps express by the term growth processes. Treitz, the gifted pathologist of Prague, who has been quoted for fifty years as the founder of retro-peritoneal hernia, poisoned himself to death with cyanide of potassium in 1872. Eppinger, his assistant and successor in the Prague chair of pathology, revered his memory by stoutly defending his theories. The chief writers since Treitz on retro-peritoneal hernia have been Waldeyer, Eppinger, Luschke, Hartman, Treves, Gruber, Jonesco, Toldt, Langer, Landzert, Schiefferdecker and Broesike.

Fig. 1 is a drawing to illustrate the anatomical features of *hernia duodeno-jejunalis* or retro-peritoneal hernia. 8 represents the vascular ring which is responsible for the formation of hernia. The vascular ring is chiefly produced by the inferior mesenteric vein 3, 3, 3. It aided to some extent by the inferior mesenteric artery 4, 4. The inferior mesenteric artery and vein project upward a fold of peritoneum which forms the border or neck of the hernial sacs on the left; on the right, the aorta 5, aids in making another border. 1 is the portal vein and 2 is the splenic vein. Note that the inferior mesenteric vein empties into the splenic in this case, which is a sign of higher and more complex mammalian life. Hernia in the *fossa duodeno-jejunalis* (Huschke's fossa) or *hernia retro-peritonealis*, depends on the *vasa mesenterica inferiora* for its accomplishment and this is distinctly marked out in the diagram. 6 and 7 point to the common iliac arteries. The lower number 4 points to the intersigmoid and superior hemorrhoidal artery. The conditions for hernia are a ring, a sac and a dislocated viscus.

The general proposition may be made that intra-abdominal hernia is of congenital origin. That is, that the recesses of the peritoneum were gradually developed in late fetal life or early extra-uterine life. Two factors arise to produce the hernia, viz.: The first is a peritoneal fold produced by a blood vessel; the second is the formation of feces in the bowel. Now intestinal peristalsis drives the feces into the bowel which lies on or near the fossa, and the blood vessel in the peritoneal fold resists the bowel full of feces and there results a gradual widening of the fossa.

In general it may be asserted that peritoneal folds are produced by blood vessels and displacement of the peritoneum, or as claimed directly opposite by some, coalescence of the peritoneum. We can insist that it is quite reliable that an intra-abdominal hernia is nearly always congenital and that it is accompanied by a fold of peritoneum thrown up by a blood vessel. Exceptions may be allowed in hernia of Winslow's foramen. Now added to this we have other peritoneal folds produced by growth processes, by dragging, by traction. Such folds exist about the cecum, as the original mesenterium and some folds at the duodeno-jejunal flexure. It must be understood in this article that I do not intend to speak of hernia produced by pathologic processes. I mean here simply hernia produced by physiologic or growth processes of the peritoneum. Intra-abdominal hernia is somewhat rare, as in 400 personal autopsies and besides observing many post-mortems performed by others, I only saw one case. Also in several hundred laparotomies of my own I never saw any.

The frequency of intra-abdominal hernia occurs in the following order: 1, in the *fossa duodeno-jejunalis*; 2, in the foramen of Winslow; 3, in the peri-cecal fossa. So far as my observation and reading is concerned, I am doubtful in regard to the existence of an inter-sigmoid or peri-cecal hernia.

1. It is in the region of the duodeno-jejunal flexure, in the *fossa duodeno-jejunalis* where intra-abdominal or retro-peritoneal hernia, makes its appearance. This fossa has such a variable appearance that it is difficult to make one description apply to more than a single case. But in general it is located at the left side of the second lumbar vertebra. It lies in the angle made by the aorta and the lower border of the pancreas. It is bounded on the left by a peritoneal fold, the *plica duodeno-jejunalis*, on the right by the duodeno-jejunal bend, above by the *mesocolon transversum*. The fold of peritoneum, the *plica duodeno-jejunalis*, is produced by the inferior mesenteric vein and occasionally by the inferior mesenteric artery. It begins where the duodenum begins to ascend for the last time and is lost in the inferior surface of the *mesocolon transversum*. This fold varies very much in size, depth and length. The blood vessels are not always found exactly at its margin, but may



be considerable distance from it. The free border of the fold is curved, a semi-lunar shape. The fossa will usually lodge the tips of two fingers. There is also a right-sided *fossa duodeno-jejunalis*, but the left one produced by the *arteria et vena mesenterica inferior* is the chief seat of this form of hernia. This form of intra-abdominal hernia, *hernia duodeno-jejunalis*, depends on the *plica duodeno-jejunalis*, which in turn depends on the course of the inferior mesenteric vessels. For this form of hernia to arise, the *plica duodeno-jejunalis* must be of a certain height so that the bowel may pass into it and allow the fecal matter to be forced by peristalsis into the bowel as it lies in the fossa, and finally the blood vessel in the folds of peritoneum must constrict the neck of the sac to some extent. In the early extra-uterine life the peritoneum is very easily shifted and displaced, and when once the bowel loop is engaged, it is easy for the hernial sac to enlarge. In intra-abdominal hernia, the shifting or wandering of the mouth of the hernial sac should be carefully observed before an attempted description is made, so that it will be definitely known what blood vessel is in the margin of the peritoneal fold which forms the neck of the hernial sac. Treitz's *hernia duodeno-jejunalis* was on the left of the duodeno-jejunal bend. But a fossa may be observed on the right side of this bend of bowel. Gruber has given complicated descriptions of such hernias, and Broesike, of Berlin, has given a clearer description of them. If we look on the right side of the mesentery of the small intestines, we may observe that the ileo-colic artery throws up a fold of peritoneum and a loop of small bowel may produce a depression in the region and finally develop into a right hernial sac. The neck of such a hernial sac would be surrounded by the ileo-colic artery and the hernial sac would reach to a level of the cecum. Thus we have a left duodeno-jejunal hernia due to the inferior mesenteric vessels, and also a right duodeno-jejunal hernia due to the *arteria ileo-colica*. Over fifty cases of this kind of hernia occur in the literature. The hernial sacs and necks can be shifted downwards by weight of viscera. The elements in their right and left hernia are peritoneal folds produced by blood vessels, early development and the peristaltic forcing of the bowel in the fossa by fecal accumulations.

In this category, *hernia duodeno-jejunalis*, (*sinistra et dextra*), are comprised almost all the intra-abdominal hernias.

2. Hernia in Winslow's foramen (*foramen omenti minoris*) is rare. Broesike collected eight cases, and I heard one case described at a medical society. Such a hernia is chiefly due to a long *mesenterium commune*. The anterior border of the liver would necessarily become raised, as in deep respiration, so that Winslow's foramen could gape, allowing a loop of bowel to slip in the aperture. However, if a loop of bowel once should pass through Winslow's foramen, it would have plenty of room to develop and accumulate feces in the *bursa omentalis minoris* of the lesser omental cavity. I have never heard of a hernia through Huschke's foramen, *i. e.*, *foramen omenti majoris* of the lesser omental cavity. But it could easily arise if many loops of intestines would get into the *bursa omentalis minoris*. Huschke's foramen is a vascular ring produced by the gastric, hepatic and pyloric arteries projecting outward folds of peritoneum, forming an aperture. Winslow's foramen or the *foramen omenti minoris* (or *dexter*) is also practically a vascular ring having anteriorly the hepatic artery, portal vein, hepatic duct and behind, the *vena cava ascendens*. It generally admits two fingers. But in about four per cent. of adults I have found it closed by adhesions. The right kidney aids in preventing hernia in Winslow's foramen, as it partially obstructs the entrance to the opening.

3. Hernia in the peri-cecal fossa appears to me to be almost impossible under physiologic processes, yet in many cases the possibility is not out of the question. For example, in some peri-cecal fossæ, the neck of the sac, though it has no blood vessel to strengthen its border, has yet become thickened and strong from the deposit of cicatricial tissue. The hernia, if it occur, is liable to take place in the inferior ileo-cecal fossa and not the superior one. As a condition of such a hernia, the cecum should be widely distended so that the opening of any of the peri-cecal fossæ might gape, in order that a loop or knuckle of gut might engage in the mouth of the sac. It is asserted by Broesike, a late writer on this subject, that we can only recognize as probably three or four cases of peri-cecal hernia in all literature.

4. Hernia in the inter-sigmoid fossa, or the fossa first

described by Hensing in 1844, is very doubtful. Eve described a case, but the description appears more like some congenital defect or pathologic acquisition than a meso-sigmoid hernia. At any rate, the description does not sound to me like such a hernia. So that I am in doubt as to hernia ever occurring in this fossa.

The *fossa duodeno-jejunalis*, Winslow's foramen, the peri-cecal fossæ and the inter-sigmoid fossa are the only localities of the peritoneum where intra-abdominal hernia can arise. One of the chief difficulties which arises in the reports of intra-abdominal hernia is the deficient description given. The omission to observe whether the neck of the sac is surrounded by a blood vessel often destroys the value of the whole report. I can find no case reported in literature of intra-abdominal hernia during intra-uterine life. But the conditions of the hernia must be developed during the last part of intra-uterine life (the period of fecal accumulation) or the early part of extra-uterine life. It is a congenital affair.

Intra-abdominal hernia belongs to the domain of practical surgery. These herniæ show strangulation and peritonitis so that they demand surgical interference. They have a clinical, pathological and surgical interest.

A CASE OF HERNIA IN THE FOSSA DUODENO-JEJUNALIS (SINISTRA.) *Protocol.*—Male, age 30. Death from pneumonia. Fig. 2 is a diagram to represent my own case as I found it at the autopsy, 7 and 8 represent the duodenum drawn to the right by hooks. 2 is the inferior mesenteric vein, 3 the inferior mesenteric artery. The *vasa mesenterica inferiora* form the border or neck of the sac which is responsible for the hernia. 13 is the interior of the hernial sac, i. e., the *fossa duodeno-jejunalis* widely dilated and which at the autopsy contained some ten inches of the upper portion of the jejunum. The loops of jejunum found in the hernial sac showed no pathologic condition, no congestion, no constrictions, and were easily pulled out of the sac. Perhaps two feet from the lower end of the duodenum on the jejunum there was found a portion of the jejunum dilated to the size of a stomach (9), in fact it was taken for the stomach until drawn out of its position. This dilated bowel (9) was twelve inches long and six inches in diameter. It had a hard, cicatricial structure at each end,

(10) but especially at the lower end. This portion of the bowel had no doubt been herniated into the *fossa duodeno-jejunalis* at some previous period, where it had remained long enough to be traumatized at each end as they emerged over the border of the hernial sac (13). 1 is the superior mesenteric vein receiving the inferior mesenteric vein (2 and 16). Note as the hernial sac enlarges at its border it engages a longer range of both of the *vasa mesenterica inferiora*. 4 is the jejunum, 5 and 12 the colon. The figure is diagrammatic, as the *vasa mesenterica* should be represented lying behind the peritoneum and their outlines seen shimmering through it. The dilated portion of the gut (9) had become herniated and reduced itself. The patient gave no account of it.

The omentum did not cover cecum nor reach into pelvis. The appendix was four inches long, had a full mesentery, hung in pelvis and had no adhesions about it. It was directed towards the spleen and ran across the psoas parallel to the lower end of the ilium. The cecum was of a fetal type, three-fourths of an inch deep, two inches wide and rested on the psoas with adhesions about it. The ascending colon was eight inches long and possessed no mesentery. The *ligamentum hepato-colicum*, the point I assume as the beginning and ending of the transverse and ascending colon, is present. It reaches to the top or fundus of the gall-bladder. Adhesions are marked about it. The transverse colon is twenty inches long, with a five inch mesentery. The *ligamentum phrenico-colicum sinistrum* is present with adhesions about it. The descending colon is eight inches long with no mesentery. There are no vertical mesocola. The sigmoid is twenty-four inches long, with a four inch mesentery. The mesosigmoid does not possess any adhesions on its left side, not even in its inter-sigmoid fossa which is present. Gruber's fold (*ligamentum mesenterico-mesocolicum*) is present and has adhesions where it crosses the psoas. The small intestines are twenty-six feet long and possess a mesentery of seven inches. There is an old peritoneal cicatrix at the lower end of the mesentery. The stomach is almost vertical, there is perisplenitis and perihepatitis. The lower pole of the right kidney is one inch above the iliac crest, and that of the left touches the iliac crest. The urachus is about the thickness of shop-cord. The right inguinal ring (from the inside) admits one finger,

the left admits two fingers. The right femoral ring admits two fingers and the left admits one finger. There is a peritoneal scar at one internal inguinal ring.

The *fossa duodeno-jejunalis* is present and admits four fingers in a row, i. e., its mouth is some two and one-half inches across. It contained ten inches of the upper end of the jejunum. These ten inches of jejunum could be reduced easily and showed no evidence of strangulation or peritonitis; but the third foot of the jejunum had once been herniated in this fossa, as it showed evidence of strangulation, old peritonitis, two bowel strictures and large dilatation of the bowel between the strictures. The dilated portion of the jejunum was six inches in diameter and twelve inches long. The structures at either end of the dilated bowel were hard, thick, and produced a lumen narrower than the normal jejunum. This portion of the jejunum had at one time been incarcerated in the *fossa duodeno-jejunalis* and almost suffered fatal strangulation, as is indicated by the resulting jejunal strictures. The *fossa duodeno-jejunalis* is one of the genuine peritoneal pockets, (*recessus peritonei*) because its neck or inlet is produced by the inferior mesenteric vein (and to some extent by the artery of same name) which is dilated to two-thirds the size of the little finger. The vein courses along the border of the neck of the retro-peritoneal sac. Evidences of past peritonitis exist all over the hernial sac, especially at its margin. The *plica duodeno-jejunalis* is held in position by the vein and the constriction of the gut and the hernia itself is due to this vessel. The hernial pouch is larger than its neck. The neck in whose margin courses the inferior mesenteric vein, (and the artery for some distance) would not yield. It produced a rigid ring. The dilated jejunum (6x12 inches) once herniated but now released, was distended by gas and looked so large that it was mistaken for the stomach. This places on record a distinct case of hernia of the *fossa duodeno-jejunalis sinistra*, produced by the inferior mesenteric vein projecting the *plica duodeno-jejunalis* into a constricted ring. Doubtless this *recessus peritonei* is of congenital origin, but the strangulation of the jejunum by the mouth of the sac is certainly post-natal and very likely occurred during adult life.

I performed this post-mortem through the courtesy of Dr. C. G. McCollough.

## THE THERAPY OF THE NITRITES.

BY JOHN B. MCGEE, M. D.,

Lecturer on Therapeutics in the Cleveland College of Physicians and Surgeons, Medical Department Ohio Wesleyan University.

The introduction of the nitrites as remedies is due to Lauder Brunton, who first used them in angina pectoris, nearly thirty years ago; and from that period to the present they have been quite extensively employed, and no other agents have been found more efficient in the prompt relief of this distressing disease. The official salts at present are those of amyl and sodium. Other metallic nitrites, as those of potassium and strontium have been used with no apparent advantage over the sodic salt, and another organic nitrite, that of ethyl, exists in the familiar *Spts. Etheris Nitrosi*. As is well known, the influence of the nitrites is exerted almost exclusively on the circulatory system, the vessels dilating and the tension becoming less under their use. The almost immediate action of the amyl salt when inhaled is assumed to be due to the fact that the entire molecule reaches the vessel walls, while its slower, slighter and more prolonged effect when taken by the stomach doubtless depends upon its decomposition there before absorption. Its inhalation is useful when a prompt cardiac stimulus is required and in hysterical convulsions is one of the most rapid methods of relief we possess, while even in epilepsy its use will frequently avert an attack, when inhaled at its inception.

It is an interesting fact that nitroglycerin, trinitrin, or glonoin, as it is variously termed, although a *nitrate* of glyceryl, and so differing chemically from the nitrites, has a therapeutic action essentially the same. This is evidently due, not to any similarity of action in the two original salts, but to the fact that the nitrate is reduced to a nitrite and so exerts an identical influence, the nitrous acid in both cases being the really active agent and differing only in the manner in which it is presented to the tissues. In the nitrites it is set free in the stomach and there absorbed, while the nitroglycerin is absorbed intact, and being decomposed in the blood, the nascent acid is there evolved. Any excess not so decomposed is eliminated unchanged by the kidneys, and although large amounts may be taken, the rapid renal



excretion averts a cumulative action and renders it comparatively safe. Nitroglycerin has practically displaced the nitrites, which often disagree, as eructations and gastric irritation follow the evolution of the acid in the stomach, and it is certainly the most generally used and most generally useful member of its class. When taken internally its absorption is so rapid and its action so prompt, that its hypodermatic use is rarely required, except when the patient is unable to swallow, or the stomach to absorb it; and as very few deaths have been known to follow its use, it appears to be a remedy which, considering its potency, is quite safe to employ.

The headache it produces is said to be longer in duration than that following the use of the nitrites; but that due to nitroglycerin is both immediate and remote as far as the apparent cause is concerned. The headache felt shortly after taking the drug probably depends on the changes produced in the cerebral circulation; while that occasionally persisting for hours after this effect has evidently ceased, is ascribed not to the nitrite alone, but also to the action of the organic radical glyceryl with which it was combined. Being very rapidly absorbed and eliminated, the influence of nitroglycerin is rather evanescent, most authorities placing its limit at about two hours, which indicates its frequent administration if we desire to maintain a decided action. An examination of its effects reduces them to a single positive influence, that of a vaso-dilator, and the evident inference is that its field of value is practically limited to that class of cases in which contraction of the vessels exists and high tension follows. When these conditions are present we can confidently predict favorable results from its use. Raynaud's disease presents an apparent exception, for while the existence of vascular spasm would here indicate its probable value, the results have not been as beneficial as our knowledge of its action would presuppose, and my own limited experience with this agent in this affection leads me to coincide with this statement. Ordinarily, however, its utility appears to be in a direct ratio with its dilating power, and whether the contraction of calibre be the result of spasm from excessive excitability of the vascular walls, or due to distinct pathologic changes as in arterio-sclerosis, it readily responds to this remedy.

Because of this action it has been recommended in anemia, as it has been assumed that the increased vascular supply would improve the nutrition of the anemic structures.

Small doses stimulate the respiratory center, and its use rapidly relieves spasmodic asthma, doubtless, as stated by Fraser, by relaxing the muscular tissue of the *bronchi*. In pneumonia, when respiration is shallow and cyanosis present, it not only directly aids the right heart in its work, but relieves the venous stasis present by favoring the flow of blood into the arterioles. This effect is especially evident in children in whom the distressing symptoms are often promptly relieved by its use.

In the high tension of renal cirrhosis, its action aids diuresis and lessens the heart resistance imposed by the arterial changes existing in this disease; and while its diuretic power is not always very decided, the relief to the serious symptoms is frequently immediate, though rarely permanent. In this disease, as well as in asthma and dyspnea, there appears to be a special tolerance of this drug.

At present, the most popular use of nitroglycerin is probably as a cardiac stimulant, as the involuntary muscles generally, and cardiac muscle especially, seem extremely susceptible to its action. When given frequently, however, a tolerance is established requiring increase of dose to insure continuance of effect, and it also appears that the danger from its use does not increase relatively with the dose, if the increase be gradual.

We know a weak heart can be aided either by increasing its power or lessening its work, and this remedy satisfies this double indication; the initial stimulus to the heart is supplemented by the relief of resistance due to vascular dilation, and it is quite probable that the second factor is fully as efficient as the first in the aid which it here confers. While considered a cardiac stimulant, it is evidently such only in small doses; large ones are distinctly depressing, and as the line between stimulation and depression is here easily crossed, the frequent use of small doses gradually increased, if required, will probably yield the best therapeutic results.

In dyspnea dependent on a cardiac cause, it appears to strengthen the pulse as well as lower its tension, and its

greatest value here lies in mitral disease in which dyspnea most frequently occurs; but even when associated with aortic lesions, the relief it affords, while perhaps but transient, may greatly aid a weakened heart in regaining its power. In fact, as a routine remedy for dyspnea from any cause, Leech states that no other agent excels it, or its allies the nitrites.

In cardiac failure it has been quite commonly employed, and with almost universal benefit, but this apparent condition may arise from causes essentially dissimilar; in syncope, where the cerebral vessels lack blood, relief will evidently follow its use, but in true shock or collapse, where the real condition is one of vaso-motor paralysis, its value would appear doubtful, and its use perhaps prove positively harmful. Atropine or strychnine would here seem preferable, and of these, the action of atropine is more prompt, while that of strychnine is more sustained.

In the vascular changes incident to the so-called "senile heart," and the increased peripheral resistance which these changes imply, its action, while palliative rather than permanent, efficiently aids other remedies. It is best adapted for continuous use in angina, though the amyl nitrite is perhaps preferable for immediate effect.

An objection to the use of digitalis in some forms of cardiac and renal disease is its contractile action on the arterioles, so increasing the labor of the heart; its combination with nitroglycerin, however, neutralizes this effect, aids its cardiac action, and increases its diuretic power.

Although this remedy exerts so decided an influence on the muscular fibre, its effect on the nervous tissue is relatively very slight; hence the benefit which so frequently follows its use in painful affections, as neuralgias, migraine and sciatica, as well as the relief to the pain associated with local vascular changes of a sclerotic character, is presumably due—not to any direct anodyne power possessed by the drug—but rather to the circulatory changes it induces in the parts involved. When used in locomotor ataxia to ease the pain and render the crises less frequent, a similar action may explain the benefit produced, as well as in sea-sickness, where its value is doubtless due to its vaso-motor influence.

The centesimal alcoholic solution ordinarily prescribed

should not be combined with alkalies, as they may decompose it and render its action uncertain.

Recent observations indicate that the nitrates of other organic radicals possess therapeutic properties identical with those of the glyceryl salt, and the nitrates of mannitol and erythrol have thus far been most employed. As compared with nitroglycerin, the reduction of tension under their influence is less decided, more slowly produced and persists for a longer time, the fact that they are very slowly decomposed evidently explaining this fact. At present they appear to possess no advantage over nitroglycerin, which will doubtless continue to be our main remedy when we desire a vaso-dilator on which we can rely.

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## A STUDY OF THE CHEMICAL COMPOSITION OF VOMITED MATTERS IN THE GASTRIC CRISES OF TABES.

BY DR. J. HNATEK,

Assistant Physician to Professor Maixner in the First Bohemian Clinic,  
Prague.

Two years ago the writer published a paper, in Bohemian, on the aberrant forms of tabes. In the following lines it is proposed to bring to the notice of English speaking colleagues the results of a part of the paper mentioned, with added material.\* The writer is aware that on a single case we cannot hope to build a new doctrine. Yet he believes that ample apology will be found for all he advances, when the peculiarly apt case observed is considered, for cases so well adapted for chemical examination must occur very seldom. Moreover, my conclusions oppose none of the authorities who have worked in the same field, but rather complete their labor. The case in question is very interesting in point of diagnosis, and I hope to be pardoned if the story is told more fully than an ordinary case of tabes deserves.

J. H., *aet.* 36, bookbinder. No nervous disease in the family. His mother died of pneumonia. He did not know

\*It is a pleasure for me to express my thanks to my esteemed friend, Dr. Charles J. Aldrich, for his kindness in revising this my first sin in English literature.

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his father. His brothers and sisters are healthy. He had measles at six and gonorrhea eleven years ago. After this he suffered *papillomata ad anum*. A syphilitic infection is not confessed. His wife had two miscarriages. Four years ago he suddenly fell ill at his business, vomited, trembled in his limbs, and was considered as if suffering from gastritis and cholelithiasis. The vomiting was repeated without rule. Six weeks afterwards he went to his business not fully restored.

In a short time he observed that his eyesight was failing, especially on the right side. He describes the field as misty. All objects were now seen double. He was treated with *unguentum cinereum* eight weeks, along with iodide of potassium. Five months later he developed a right divergent strabismus. That was in December, 1892. In March of the following year he was affected with falling asleep of his fingers and severe pains in his neck. When he shut his left eye he staggered. Every attempt at leaving his bed was spoiled by giddiness.

Since one year, impotent, before, he observed a retarded ejaculation after finished erection. Patient lost, in the last four years, four quite healthy teeth, without apparent cause. In three years he has lost 70 lbs. of his former weight. The appetite is variable, sometimes bulimia. In order to get rid of his severe gastric pains, he consulted our clinic, where he was admitted July 18, 1893.

Condition on admission: Patient of middle size, strong frame, evidently grown lean. The symmetry of his face is deranged by a right ptosis and a *strabismus divergens* of the same side. Pupils are not equal; the right is larger, elliptical with its long diameter going from outside below, to inside above. The margin of the left pupil is not sharp and is slightly toothed. Neither reacts to light, and they are sluggish to accommodation. Nystagmoid movements are produced in the right eye when it is turned to the nasal side. Left eye reads Jaeger No. 1; the right, -2D, Jaeger No. 8. The perimetric examination shows a contraction of the visual field of the right eye in a vertical direction of about 20 degrees and downwards of 10 degrees, and in a horizontal direction of 10 degrees on both temporal and nasal sides. Left eye: contraction upwards 20 degrees; nasally, 25 degrees; temporal, 30 degrees; downwards, 20 degrees.

The fields are still more contracted for colors. Central vision for colors is quite normal.

The tongue is a little furred. Speech unaffected. Neck is muscular and long, and the pulsation of the carotids well marked. The thorax is, excepting a deep depression in the middle of the sternum, symmetric and regularly formed. Respiration, costo-abdominal and 16 per minute. Pulse, 76 per minute. The skin of the whole body is covered with reddish violet knobs of acne produced by the long administration of *kali iodidum*. The walls of the abdomen are retracted so that the contours of the muscles are visible. Pronounced pulsation of the aorta is present. Daily quantity of the urine 1500 c. c. No albumin or sugar. The knee jerk on the left side is abolished, on the right, normal. There are no cremasteric reflexes. Abdominal reflexes are normal.

Examination of sensibility shows the following condition: Besides normal sensibility we find on his right face an area the size of a child's palm, where exists Remak's double feeling; one irritation is twice appreciated. In the lower triangle of the neck, touch impression is considered painful. The temperature sense is normal on the head and neck. The right upper extremity is in great measure analgesic; only on the phalanx of the fourth finger and palmar side of the thumb, and on the second phalanx of the thumb and third phalanx of little finger on the dorsal side, is normal perception of pain impression preserved. The other phalanges of the little finger show retardation of pain impressions. The sensation of pin pricks on spots on the third and fourth fingers is declared to be cold. Touch is everywhere perceived except on some very small areas. Over the *olecranon ulnæ* the perception of heat is abolished. Above the wrist cold is considered to be hot. On the inner side of the arm the test tube of warm water (122-131 F.) is immediately perceived as touching, only after a longer application is its true nature recognized. On other spots, for example the palmar side of the third finger, the application of the *glace* filled tube produces the feeling of a sleeping of the finger. The radial side of the hand only is able to perceive temperature impressions without fault. The left upper extremity feels accurately the touch and pain impressions. Sensibility is however dimin-



ished slightly on the back of the hand and palmar side of the wrist. In a similar manner as on the right extremity the perception of heat is abolished; cold is accurately perceived.

The two first intercostal spaces on the right side are completely anesthetic and analgesic. The other part of the chest is hyperesthetic to the rib bow. Temperature is well recognized on the left side; on the right, *glace* is considered hot. Abdomen is hyperesthetic except a small area. On the back, the analgesic spots alternate with hyperesthetic ones. On the right side of the spine in the lower part of the chest, there is a pronounced patch of hyperesthesia corresponding with a symmetrical hyperesthesia of the other side. The perception of hot and cold on the back is everywhere normal, except a small place in the level of the tenth rib on the left side, where there is a complete anesthesia for touch, pressure and heat; but cold is accurately perceived.

The sensibility of the lower extremities is symmetrically affected. We found hyperesthesiæ on the anterior parts of the thighs and buttocks, the other parts were anesthetic. The difference of temperature is perceived only after prolonged application of the test tube. This faulty differentiation of temperature disappears as the tube is carried upwards. Muscular irritability for both currents is only slightly diminished in the lower extremities.

The gait of our patient is so far changed that it is performed on a wide base. Having shut his right eye he complains of some loss of equilibrium while standing. There is no incoordination of the hands, and Romberg's symptom is not present.

During our observation of seven months the most striking symptom we noticed was severe attacks of pain in the left hypochondrium which the patient compared to the sensation of the cutting and picking of two knives one against the other. These attacks occurred sometimes twice a day, and lasted several hours, and were accompanied by vomiting and vomituration. The longest painless interval lasted only ten days.

In order to prove the diagnosis of tabes I will briefly refer to the mentioned eye troubles. The rigidity and unequal pupils are striking. This symptom was pointed out by Charcot, and Berger was able to demonstrate it in

27.6 per cent of his cases (106) (*Die Sehstörungen bei Tabes dors., Archiv für Augenheilkunde, 1889.*)

Deformity of the pupil occurs, according to the same author, very frequently, he himself observed it in thirty-two cases. The most common is the ellipse with the long axis from downwards on the outside to upwards inside.

The paralysis of the internal rectus; the ptosis and nystagmoid movements of the same eye; the troubles of sensation, especially in the distribution of the ulnar nerve; the loss of knee jerk on one side; and the severe gastric crises are sufficient to make the diagnosis of locomotor ataxia, notwithstanding the preservation of the knee jerk on one side.

The loss of knee jerk in this case occurred while under the care of physicians. The patient had his strabismus, and his crises and yet his knee jerks were quite normal. It is peculiar that in the crises the knee jerks are very well marked, especially on that side where it existed *de norma*. This interesting fact can perhaps be explained by the hypothesis that the augmented irritability of the nervous system, incident to the gastric crisis of tabes, facilitates the conveyance of the so called reflex impulses. This idea receives further support from the observation that after the passing of the crisis the phenomenon of increased knee jerk disappeared.

At the head of all symptoms are the gastric crises. Hoffman (*Westfall's Archiv, 1888*), thinks that he observed one of the most severe cases of these crises. His patient suffered from them four weeks. In our case, the vomiting lasted with the described pains full 30 days, less one pause of five days and three pauses of one day each. According to Fournier, it is exceptional for them to last longer than one week, and Sahli and Rosenthal consider six to twelve days to be the maximum. Vulpian points to the importance of these crises and admits the possibility—in the first stage of tabes—of a diagnostic error, with hepatic or renal colic, gastric ulcer, ileus, or poisoning. The pains in the left hypochondrium which our patient suffered were so severe that, although a strong man, he cried like a child, groaned and gnashed his teeth, tossed on the bed and prayed with folded hands for relief. Usual morphia injections failed to render his state bearable. Hematemesis did not occur;

this complication, according to Vulpian, is usually noticed at the end of a crisis and may be accompanied by an exanthem resembling roseola. This exanthem is said to disappear before the end of the crisis.

The intensity of the pain of these crises is well shown by Vulpian's two patients. One of these, by contraction of the thigh musculature, fractured his femur; and the other, desperate with pain, compressed his arm so that a radial palsy resulted.

The vomit of our patient was of the same nature as we are accustomed to see in hypersecretion of gastric juice. It contained on an average 527 c.c., without food. The patient suffered little from thirst, so that the vomit cannot be spoken of as a solution of the gastric contents that was chemically examined—a transparent fluid of green color, acid reaction without any sediment, but with plenty of mucous flakes, formed the great bulk of the vomited matters. Sometimes it was possible to prove a certain quantity of bile pigments.

There cannot be doubt of hypersecretion of gastric juice in the gastric crises of tabes, but the condition of hyperacidity of the juices, which has been held to be the chief peculiarity, is entirely another question. I determined, quantitatively, the amount of hydrochloric acid in the vomit of our case and found that hyperacidity did not exist. The largest quantity of free hydrochloric acid I found was 2.19 per cent. If we consider that the normal juice of the stomach contains 1.3 to 1.7 per cent.,—after other authors, 1.3 per cent.—our estimate is not striking, especially when we consider that hyperacidity consists of 4 to 6 per cent. of free acid.

Our finding of 2.9 per cent. was exceptional—only four times in fifty-five examinations did it reach that figure. I cannot affirm the circumstance to which Rosenthal attributed so much importance, that vomit in the last days of a critical period contain less hydrochloric acid than the early days. For example, in my case, on the twenty-first day, in the longest period, was one where the quantity of hydrochloric acid was the greatest. The first days, on the contrary, were quite free of HCl, but there could be constated a small quantity of lactic acid. Not only was the amount of hydrochloric acid increased, but it was sometimes diminished;

and we witnessed very severe crises where the HCl was wanting, but the lactic and fat acids could be shown. In one of the severest crises, was the total acidity (1 per cent.) only caused by the presence of the latter.

Limonin found a relation between the severity of the crisis and the quantity of HCl. According to him, the severest crisis was combined with the contents of the stomach made most acid by HCl. I did not find it so. In whole, we observed five attacks where hydrochloric acid was absent, one where it was only in traces, and two where all acids were absent, the matters reacting neutrally.

I intended to examine the contents of the stomach in normal condition, and by chance it was made on a day when later a crisis occurred, and I found that the vomit was less acid than in the height of the crisis. This observation only applies to acidity by hydrochloric acid. This rule had no value for lactic acid.

In the beginning of a crisis I found the HCl increasing; in the second part, at its height; later, diminishing; and lastly, very scanty or quite absent. This rule was without exception.

It may be permitted me to sum up the results of my studies as far as they concern the condition of acidity in general and hydrochloric acid in particular.

1. Hyperacidity in gastric crises is no essential phenomenon.

2. The quantity of HCl is in no proportion to the severity of the crisis. (The same results were obtained by Hoffman.)

3. There are gastric crises in patients who are affected sometimes by an excess of HCl, and sometimes the acid is completely lacking.

4. If there is a crisis with hydrochloric acid, the quantity of it increases during the crisis, and after having reached the maximum, it decreases faster than it arose. It can also be said that the vomiting in crises with HCl lasts as long as the stomach consents to a little hydrochloric acid.

5. In the course of longer crises there can be, in the last days, a good deal of hydrochloric acid present. This circumstance seems to depend on the use of food which, if it could be taken in a quiet interval, would enable the stomach to produce the HCl in following crises.

## CONDITIONS WHICH MAY SIMULATE ORGANIC OBSTRUCTION OF THE LARGE INTESTINE.\*

BY THOMAS H. MANLEY, M. D., NEW YORK.

Fecal stasis, impediment to motion, or complete obstruction in the large intestine occurs more commonly than in any other region of the alimentary canal. It may be also added that the seat of impaction may be more readily recognized here and happily, through appropriate therapeutic resort, relieved. In my own experience in a considerable number of cases I have found varying degrees of fecal stasis very much more common than is generally supposed, and when discovered, in cases not dependent on organic changes, quite easy of relief.

In order that we may better appreciate some of the pathologic conditions of the large intestine, it may be well that we first make a brief review of its structure and function. Let it be understood at the beginning that it is in function a reservoir or receptacle for the feces, as the bladder is for the urinary secretion; that it is a sewer vent only, receiving, lodging and discharging the alvine deposit. At the ileo-cecal portal digestion ends and the work of elimination begins. With a terminal segment of the alimentary canal so radically different in function from that concerned in the chemico-vital changes of digestion, it follows that we must necessarily note a wide difference in the histo-anatomical structures. And so it is in very many important particulars. To begin, it does not appear clear why a simple pouch for the feces would not have served the purpose of the long, convoluted, twisted colon, which from its shape, position and direction is constantly exposed to injury or disease. The distinguishing anatomical characteristics of the large intestine are its size, convoluted contour, its broad fibrous bands, the thinness of its walls, and its fixed position below and on the sides. In its walls dense bands of fibrous tissue abound to give it strength and elasticity. There is a scarcity of smooth muscle tissue, and its glandular structures are wholly mucous. If we open the abdomen of a living animal we may readily see or feel the peristaltic wave of the small intestine while the colon is

\*Read before the Mississippi Valley Medical Ass'n, Sept. 17, '96. Modified for the GAZETTE by the author.

quite motionless. It is therefore evident that movement in the colon is almost entirely dependent on extraneous influences. If we inject any non-corrosive toxic substance in solution into the healthy bladder it will be retained unchanged without entering the circulation; but not so with the rectal end of the large intestine which will quickly absorb it. In fact the rectum will absorb almost any substance reduced to a pulp or fluid; and there can be no doubt, reasoning from analogy, that under many conditions it will reabsorb the fecal elements.

The alimentary residue as it clears the colic valve is sent into the cecum, then it makes a detour first downward then up against gravity, the fecal current meeting resistance again at the hepatic flexure, to clear the splenic arch and descend to the sigmoid spiral and remain in this, until sent into the rectum. The colon of all parts of the alimentary tract is most liable to atypical development and derangement in its relations. This is particularly true of the *caput coli* as every surgeon well knows, from his experience with operations on the appendix. I have seen the large intestine in a female cadaver no larger than the ileum. We may find the cecum far away from its usual site, up near the right kidney down in the pelvis, or even over beyond the median line. And so will we not uncommonly find this organ passing out of the abdomen in hernia, reducible or strangulated.

The cecum, the ascending and the descending colon and the rectum are all more or less fixed by the retro-peritoneal tissues; a type of anatomical structure for the first time ably described by Mr. B. Alexander at the late meeting of the British Medical Association, '96. However fixed the attachment of the cecum, those of the transverse colon and the sigmoid are very variable. In all large, and in some moderate sized umbilical hernias, the transverse colon is as a rule found; and occasionally the sigmoid flexure makes its way out through an inguinal hernia on the left side. Dr. Theo. A. McGraw, of Detroit, in a late able contribution on the surgery of the colon, calls attention to these anomalies and their importance in the diagnosis and treatment of colic lesions; and Jacobi, of New York, points out that an elongated mesentery plays an important role in infantile constipation, dependent upon impaction and displacement of

## 22 MANLEY: *Organic Obstruction of the large Intestine.*

the sigmoid. Mechanical obstruction of the large intestine varies in degree, situation and in causation. As an etiological element, everything will be excluded of an organic origin, and hence only those factors of an extrinsic source will be touched on.

The principal pathologic conditions of an extraneous order which play a dominant *role* in obstructing the fecal current are:

1. Atony of the bowel, degeneration, hemorrhoidal lesions.
2. Neoplasms, inflammatory deposits, ectopic or displaced organs.
3. Hernia, strangulated or reducible.

Atony of all the muscular tissues, smooth and striped, begins to make itself manifest about middle life; in some later than in others. Its effects are more pronounced in the female, and its influence is more pronounced in the large intestine than any other area of the digestive tube. The large intestine is widely expanded at its origin and its terminus; and in these situations do we most commonly find fecal stasis or impaction, succeeding enervation of structure. We not only find a diminution in sensation, but a marked impairment of motor power. Hemorrhoidal degeneration of the ano-rectal verge consecutive to venous stasis, inflammation, thrombosis, hypertrophy, or atrophy is one of the penalties for the upright attitude and modern civilization and is a most prolific source of weakness in expulsive power, or of stenosis at the anal outlet.

Neoplasms, tumor formations, or deposits in any part of the colic arcade may interfere with or totally arrest motion within the lumen of the large intestine. This is liable to occur in any of its fixed areas. The female sex in consequence of the demands on her in pregnancy and the singular frequency of new growths and infectious deposits in her internal genitalia is most liable to physical impediments of this type. In the rectum too, the female is prone to a comparatively common type of fecal obstruction from uterine displacement backward. In some instances the hypertrophied uterus is completely retroverted and so wedged down by adhesions as not only to constitute a permanent barrier to defecation, but it may induce a persistent rectal irritation, and on examination be mistaken

by the unwary or inexperienced for a new growth. Two such mistakes have come under my notice. Hernia is sometimes a factor in closing the large intestine, or impacting the fecal current. It is unusual however that life is seriously jeopardized by it except in the event of strangulation. When this does occur its evolution is more gradual than when the small intestine is extruded. It is the most dangerous of all the causes leading to extrinsic obstruction. I have seen it in strangulated umbilical hernia of women and in the inguinal of men, lead to death, through not having been recognized until it was too late to promise anything by operation.

*Symptoms.* As may be inferred from what has been submitted in every case of the type of intestinal obstruction considered here, the constitutional symptoms occupy a prominent position although they are not well accentuated. Indigestion, constipation, auto-infection, reflex irritations and disturbances in organs remote from or contiguous to the large intestine may be noted. Our attention nevertheless is more commonly directed to the seat of trouble by local symptoms. Cecal impaction, typhilitis or appendicitis of subacute type in all stages of life give rise to a pain in the right side with a sense of weight and soreness over the right iliac fossa. Rectal impaction in the male may lead us to suspect prostatitis or hypertrophy of the prostate or cystic disease, the bladder being crowded over against the pubes and its capacity so reduced that it can hold but little more than an ounce at a time. Indeed it is my belief that a constant irritation is propagated to the prostate by the rectal fascia in impaction of the rectum and is one of the most fruitful causes of inflammatory hypertrophy of the prostate. In elderly people, with vesical irritation of long standing, let us not overlook the possibility of pressure resulting from fecal stasis or impaction in the rectum.

In the female, rectal inertia on the one hand and ectopia of the organs of generation on the other, produce reciprocally the most complex train of symptoms. In many women there is even in health a tendency to descent of the uterus with a permanent backward displacement of the organ against the rectum, and *vice versa*, especially in the multiparous, in consequence of damage to the *levator ani* in the parturient act. Atrophic changes follow, greatly reducing



its expulsive power, and leading to a serious impediment in function, thus favoring a constant tendency to impaction of the rectum. There can be no question but many of the symptoms of uterine and vesical troubles in elderly women proceed from these causes.

Costiveness we might suppose should occupy an important position in the symptomatology of intestinal obstruction, but as this may proceed from so many diverse causes, alone it is unreliable.

*Regular stools.* In many we should place but little reliance on what patients tell us in this respect. Thus in one instance an old gentleman informed me that his valet gave him an injection every morning, it was always succeeded by a loose motion and he was regular; yet in consequence of the condition found on examination of the abdomen evidence pointed to impaction of the entire colon. I explored his rectum and there found an enormous enterolith solidly wedged into the pelvis. It was as large as a fetal head and had to be split in pieces with a mallet and osteotome before it could be removed. He assures me that he must have carried it for fourteen years, as during all that time he had most troublesome vesical irritation and tenesmus. It was most extraordinary in this case that with the exception of local disturbances, his health did not suffer.

*Diagnosis.* We must rely on physical examination very largely in ferreting out the pathologic basis of these troubles. Surface and rectal examinations are our main reliance; but it must be conducted with method and skill. In the thin subject, we may receive much positive information by inspection, percussion and palpation of the abdominal walls. By these means we may often detect cecal impaction, a condition which Sir Thornley Stoker, of Dublin, maintains is not only a most prolific cause of typhilitis and appendicitis but is often mistaken for it, and hence he advises in doubtful cases to explore for it, and if present, thoroughly to clear the large intestine by turpentine enemata. By this means alone, in his own hands, he has cured several. Sigmoid impaction or volvulus might be mistaken in the female for new growths or pus collections and can only be differentiated by a physical examination.

Rectal examination is more valuable than all others combined. We may examine by the finger alone in the

rectal pouch or by conjoined bimanual examination. Before we begin, the bladder should be emptied. In the female, we are enabled to make our work of exploration more thorough and satisfactory through utilizing the vagina. In this examination, we must depend quite exclusively on digital exploration, as the speculum or other instruments will afford little, if any, aid, while on the contrary their untimely or unskilled use in inexperienced hands may work great evil.

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## NERVE SUTURE AND OTHER OPERATIONS FOR INJURIES TO THE NERVES OF THE UPPER EXTREMITY.\*

BY A. J. OCHSNER, CHICAGO.

The following conclusions were supported by the author's experience in the treatment of eight cases tabulated below :

1. Every severed nerve should be sutured even after years.
2. The earlier the operation is performed, the better.
3. If neither sensation nor motion is established after a year, the nerve should be again exposed, the cicatricial tissue removed and the ends again sutured.
4. The ends should be clean cut and should contain neither crushed tissue nor cicatricial tissue.
5. Tension must be avoided.
6. The wound must heal without suppuration to secure the best results.
7. Hemorrhage should be controlled perfectly to prevent intervening clot.
8. Carefully prepared catgut is the best suture material.
9. After suturing the ends either direct or "*a distance*," it is well to stitch a fold of fascia over the united nerve-ends.
10. The extremity should be placed at rest.
11. The external incision should be ample.
12. Castor oil taken in large daily doses often relieves pain due to traumatic injuries of nerves.

\* Read before the Mississippi Valley Medical Association, Sept. 18, 1896, at St. Paul, Minn., and abstracted for the *GAZETTE* by the author.

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No.	Age.	Time since injury.	Nerves injured.	Sex.	Mode of injury.	Treatment.	Date of Operation.	Date of Discharge.	Result Determined August, 1896.
1.	23 yrs.	3 mos.	Median and Ulnar.	F.	Transverse cut at wrist.	N. sut. after removing scar tissue.	Feb. 14, '93.	Feb. 25, '93.	Sensation perfect, motion defective.
2.	18 "	9 days.	Ulnar.	M.	Gun shot wound above elbow.	N. sut. "a distance" 2½ inches.	Sept. 19, '93.	Oct. 15, '93.	Sensation and motion almost perfect.
3.	29 "	4 mos.	Ulnar.	M.	Stab wound above elbow.	N. sut. after excising scar 1½ inch.	Aug. 19, '95.	Aug. 31, '95.	Sensation perfect and motion almost perfect.
4.	22 "	6 wks.	Ulnar.	M.	Stab wound below elbow.	Excision of scar compressing nerve.	Oct. 6, '95.	Oct. 13, '95.	Sensation perfect and motion almost perfect.
5.	11 "	6 wks.	Median and Ulnar.	M.	Comp. epiphys. fract. humerus.	Chiseled away bone to free nerve.	May 18, '96.	May 30, '96.	Sensation perfect and motion almost perfect.
6.	15 "	2 yrs.	Ulnar.	F.	Fract. int. condyle humerus.	Chiseled away bone to free nerve.	July 2, '92.	July 14, '92.	Sensation and motion perfect.
7.	41 "	2 yrs.	Dig. br of Median.	F.	Neuritis following injury to finger.	Amputated finger, excised nerve.	Aug. 22, '95.	Aug. 31, '95.	Pain recurred shortly after operation, but disappeared permanently upon taking daily doses of 2 oz. castor oil.
8.	16 "	14 mos.	Post. br. Int. Cut.	F.	Neuritis following dog bite.	Excised scar tissue to free nerve.	Sept. 11, '95.	Sept. 23, '95.	

## DUALITY OF THE BRAIN.\*

BY C. W. SMITH, M. D., CLEVELAND.

At a meeting of this society held early in the spring, our president, Dr. Holliday, assigned several subjects to be written upon for our discussion after the summer vacation, and among them was the above, which, luckily or unluckily, was assigned to your humble servant.

Luckily, because it has stimulated a line of thought in my brain which it might not otherwise have enjoyed and profited by, and unluckily for you that it was not assigned to one better able to cope with so difficult and intricate a subject.

Such anatomical and metaphysical subjects have been widely thought and written upon by the greatest minds of ancient and modern times, and therefore the writer can hardly be expected to do more than review in a very casual way such thoughts and facts as may be gleaned from the records at his disposal.

For the benefit of our friends of the bar, I have thought it best to outline in skeleton the anatomy of the brain, and proceed as logically as possible, from the physical to the metaphysical. For, as I understand the subject, it was the intention of our president that it should be handled in such a way as to indicate the possibility or impossibility of a dual character, such as that of Dr. Jekyll and Mr. Hyde, being dependent upon the existence of a double brain, either one of which might act alone and be accountable for the traits of character characteristic of itself. In other words, might it be possible for the lateral hemispheres of the brain to inherit different traits of character from ancestry, representing both saint and sinner.

I believe St. Paul once said, "While I would do good, evil is present with me." It is a law taught in some of the works on psychology, that the mind has a tendency to act as it has already definitely acted. When we are thoroughly acquainted with an individual, we can generally predict what action will be taken by him on any subject where a matter of principle is involved. However, numerous instances are daily coming up to remind us that certain individuals are liable at times to side-track themselves, as it were, and move off on a tangent—in other words, do things diametric-

\*Read before the Medico-Legal Section of the Cuyahoga County Medical Society.

ally opposite to what their nearest and dearest friends would anticipate as a possibility of them.

The brain is the central organ of the nervous system ; is located in the head where it is well protected from shock and injury by the bony walls of the cranium and is nicely packed in the cranial cavity. The meninges, or coverings of the brain, wrap it nicely in three coatings and seem to suspend the brain itself, somewhat remote from its bony casing, making, as it were, cushions for it to lie upon and within. The brain is divided into two hemispheres separated from each other by a deep longitudinal fissure in which lies a fold of fibrous tissue in the shape of a sickle, known as the falx cerebri, and a similar sheet of tissue separates the cerebrum from the cerebellum. It is thought possible that this division into hemispheres may have been a mere matter of packing, as eggs are packed in pasteboard crates, the division serving to give protection against jostle and breakage. Whether this division was intended to separate this great center into more than one brain, so that they could spell each other, taking standing watches, as do our sailors on board ship, four hours on and four hours off, or to guard against the dangers of injury or loss, as indicated by the fortunate provision of having two eyes, so that if one is lost, we may depend upon the other, is the question for us to approach in this argument.

In addition to being divided into hemispheres, the brain is also divided into large lobes by transverse fissures and is still further divided into portions by sulci, or ditches, separating it into deep folds or convolutions. The number and depth of these convolutions seem to have a direct relation to the intelligence of the individual. In early childhood the convolutions are few and the separating sulci shallow, these appearing more distinctly as development proceeds. The weight of the brain also seems to have a direct relation to intellectual faculties, man being endowed with a brain larger than that of any other animal, except the elephant and whale.

It has been observed for many years that an injury to one hemisphere of the brain results in a paralysis of the opposite side of the body ; that mechanical irritation of certain convolutions on one side will produce movements of the opposite side of the body ; that when the same point of the

same convolution is stimulated by electricity, or otherwise, the stimulus always gives rise to the same motion of the body. In this way we might naturally infer that the convolutions and brain cells form a keyboard, like that of the typewriter, piano, or one for electric bells, so that when the key is touched the impression moves always in the same direction and for the same given purpose. In certain diseases of the brain where there is partial destruction or loss of tissue, certain of these keys seem to be missing, and our vocabulary is interfered with to a corresponding extent. For example, it might be possible for a man to converse fluently on general topics and still be unable to speak his own name, or the names of others.

\*"Inability to use spoken language or to give vocal utterance to ideas is designated aphasia. The defect may consist in a loss of memory of the words by which ideas are expressed, when it is called amnesic aphasia; it may consist, not in forgetfulness of the words, but in an inability to combine the different parts of the vocal apparatus for vocal expression—ataxic aphasia. When the defect involves written language and consists in an inability to recognize and make the signs by which ideas are communicated in written language, it is named agraphia, and this may be either amnesic or ataxic—the former being a mental defect, the latter an affection of the muscular apparatus.

"Aphasia and its various modifications are associated with a number of intra-cranial lesions; with occlusion, either by thrombosis or embolism of the vessels; with cerebral hemorrhage; with encephalitis and abscess; with meningitis; with the various forms and varieties of tumors; or it may be a merely mental and moral condition.

"A number of cases have now been reported in which amnesic aphasia was the sole lesion. The importance of this observation, from the medico-legal point of view, is very great. On the other hand, it is generally true that the mind is weakened or impaired in other respects, so that the presence of aphasia is *prima facie* evidence of mental impairment. Aphasics are often very curiously damaged. A musician could not read the musical notes, but could play by ear; on the other hand, Lasague saw a musician with both aphasia and agraphia, who could write down notes

\*Bartholow's "Practice of Medicine," pp. 588-540.

that he heard (Kussmaul) ; others cannot count money, or distinguish the uses of table-utensils."

The arrangement of brain cells according to function is intricate and seems to be past finding out, for the reason that cells pertaining to any particular function seem to be scattered very widely throughout an entire hemisphere and probably throughout both hemispheres.

Experiments on some of the lower animals have proven that a very large portion of the brain can be removed slice by slice without interfering, materially, with any of the functions of the body, or with the intelligence, except as to quantity, the animal becoming more dull and stupid as the brain matter is taken away. It has also been proven that in some cases an entire hemisphere has been removed and that the other hemisphere has taken on double duty, as it were, and assumed the control of the entire body.

The cortical substance of the brain is grey in color and is composed of cells which seem to be electric in their nature, and, for convenience, I will ask you to imagine that they are electric cells connected with each other by wires so as to establish the most perfect inter-communication for the flow of currents and for the purpose of combining their strength. There are also wires, or nerve fibres, which seem to take the place of wires leading from this great telephone exchange to remote portions of the body. Not only are the cells within the same hemisphere connected in the manner described, but they are also connected in a similar manner with the cells of the opposite side or hemisphere. It is an electric construction of such complexity and wonderful design as only to be fully comprehended by the All Wise and Almighty.

"What if the foot, ordained the dust to tread,  
Or hand, to toil, aspired to be the head?  
What if the head, the eye, or ear repined  
To serve mere engines to the ruling mind?  
Just as absurd for any part to claim  
To be another, in this general frame;  
Just as absurd to mourn the tasks or pains  
The great directing mind of all ordains."

A careful study of the works upon the subject has convinced me that the material portion of man is merely mechanical, and that it is dominated by a spiritual existence which has entirely to do with psychical phenomena and consequently with what is known as character.

Man, therefore, may be studied in three ways: first, as an anatomical structure; second, as an electric machine; and third, as a spiritual domicile.

In support of the theory just advanced that the brain cells, nerves and nerve force generated and transmitted by them compose a mere electric apparatus, so to speak, allow me to quote sparingly from Sir William Broadbent. When writing on the subject of "Brain Origin," he says: "Turning now to a speculation of another kind, I think I am not misrepresenting the prevailing idea as to the nature of nerve force and as to the relation between the nerve centers themselves and between them and the periphery, when I say that nerve force is considered to be energy which is transmitted from point to point of the neuro-muscular apparatus; that, for example, in the production of muscular action a certain force is supposed to be generated in the center and transmitted to the muscles upon which it acts as a stimulus, the muscles awaiting placidly the added motion in response to which they develop mechanical energy.

"The idea of the origination and transmission of energy pervades our entire conception of nervous apparatus, a center or end organ being looked upon as a placid recipient of an impulse or force which is evolved in the center in which the energy is liberated and from which the impulse starts.

"In a galvanic battery, which may be taken as an illustration, the powerful affinities of sulphuric acid and zinc are held in check so long as there is no connection between the carbon and zinc elements, and a state of tension \* \* \* exists in the wires carried from the carbon and zinc respectively, which, when the number of cells is sufficiently great, is betrayed by the leap of a spark from one electrode to the other."

We have taken a glance at man as he may be studied anatomically and as an electrical apparatus, but when we peer into the realms of spirituality and transcendentalism, we are viewing ground from a distance which is most hotly contested by different authors. In order, however, to complete my subject and to state why I believe it impossible that character should be dependent upon hereditary tendencies of either hemisphere of the brain, I am tempted to wade out into deep water and look around.

There are three things with which we have constantly



to do, namely: (1) solids, or the material; (2) force, including vibrations etc., and (3) mind. "What is mind? no matter; what is matter? never mind," is a familiar quotation. Objects pertaining to the material when in motion have momentum and are propelled by force, and when suddenly stopped by another object, the force is transmitted to the obstructing object. Force in this way goes the rounds, jostling and vibrating everything with which it comes in contact, and we are taught that it is never lost, but that it keeps up an eternal round. Thought, or mind, however, seems to belong to a different realm. A man, for example, is stationed in an office for the purpose of answering questions and giving out general points of intelligence. He never uses pen or paper and never gives forth anything but the expression of thought, and still he draws a salary which is paid to him by his employer for value received. Thought, therefore, is a commodity, a thing to be bought and sold, and the value of which is measured by the amount of compensation given. Let us delegate thought to the realm of spirituality; it is a product of the mind.

Mind is the conscious action of our spiritual existence, the ego, or self. When we say we think, are we not conscious of our spiritual identity as well as of the thought in mind? Terror, anxiety, worry, or chagrin, can in no way be referred to as property's attributes, or products of the body, but are rather attributes of the soul. Ego thinks, understands, imagines, is terrified, makes plans and communicates with others. Ego is a spirit and is supreme in its power over the body. It directs the construction and repair of the tissues, orders and maintains the functions of circulation, digestion and assimilation. Ego is educated, is susceptible of faults and intellectually falls far short of the ideal; is acted upon by external influences in such a way as to deform and retard its proper development. Spiritual growth is a real growth, and spirit, like organic portions of man, is not of spontaneous origin, does not originate *de novo*, but is born of parental spirits and has hereditary tendencies. It is so closely related to its habitat, the body, and is so dependent upon the perfect operation of the bodily mechanism, that the union of the two is indispensable to the production of conscious phenomena. Mental phenomena

are readily disturbed by bodily ills, and bodily ills may be originated or aggravated by mental states. The life of the sick may be shortened not only by the words, but also by the facial expression or manner of the physician.

The soul has three principal modes of action, namely, in knowing, feeling and willing, the acts of the intellect's susceptibility and will.

These three attributes of soul, or mind, may be illustrated as follows: one is told that a near relative has died suddenly. The first action is that of knowledge, or the intellect. The susceptibility then comes into operation, and a deep feeling of regret is experienced. It is then time for the third action to come into vogue, and the will, or volition, begins to operate, and a resolution to go at once to the home of the deceased is evolved.

These different attributes of mind are possessed in varying degrees by different individuals. One is highly intellectual, but has little or no will power; another is exceedingly willful with no corresponding amount of intelligence, while in the person of a third we may discover one intensely emotional with very little intellect and very little will.

A well rounded mind, a noble, well balanced character, is one composed of the three elements, or attributes, so carefully compounded as to be well balanced, and in a state of equilibrium.

Heredity, education and natural environments have most to do with the foundation and superstructure of the soul. Carpenter has defined character as an educated will. Goethe says "But the art of living right is like all arts, it must be learned and practiced with incessant care."

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## REPORT AND PRESENTATION OF A CASE OF FRACTURE OF THE HUMERUS, PRO- DUCED BY MUSCULAR CONTRACTION IN THE ACT OF PITCHING A BALL.

BY ROBERT BAILEY, M. D., CLEVELAND.

Complying with the request of a number of the members of the Cleveland Medical Society, I present the case of which brief mention was made at the last meeting.

James Gray, aged 32 years. Occupation, metal polisher. While engaged in pitching ball on the afternoon of September 7, 1896, he fractured his arm, the seat of the fracture being at the upper part of the lower third of the humerus.

In this case there seems no reason to suspect that the bone is otherwise than perfectly healthy. The report of the fracture was heard at a distance of 150 feet, and the patient himself thought he had been struck with a club.

As is usually the case, this fracture is transverse or nearly so, which has simplified the treatment. Situated as it is, the *brachialis anticus* anteriorly and *triceps* posteriorly serve as splints, which have also been supplemented by anterior and posterior outside metal splints held in place by adhesive plaster and bandage. This is the temporary or first dressing and will be replaced by permanent dressing of starch or plaster when the swelling shall subside.

The patient has been fully informed that a broken bone is never as good as a bone which was never broken, that in this fracture, longer time is required than is necessary for union of any other bone, while the liability is greater from union or formation of false joint. I mention this to show how a surgeon should protect himself.

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#### CUYAHOGA COUNTY MEDICAL SOCIETY.

*Regular Meeting, Oct. 1, 1896.*

The President, DR. O. B. CAMPBELL, presided. The subject for discussion was "Rational Treatment of Microbic Diseases," presented in a paper by DR. C. W. SMITH. He said that the modern surgeon is placed on safe ground in the application of remedies, by a knowledge of septic bacteria, how to prevent their influx into wounded surfaces and how to destroy them when they gain entrance. Has the medical practitioner made as much progress toward a scientific basis? The surgeon is well aware of the fever, muscular pains, headache and malaise resulting from absorption of toxins generated by poisonous germs planted in a wound. Entrance may take place as well without the surgeon's aid, but with similar results, through the skin or through the mucous lining of cavities communicating with the air, the nose, mouth, lungs and alimentary canal. The germs themselves may enter the blood and be found generally disseminated, as in malaria and anthrax.

A powerful resistance is exerted by normal functions, and germs thrive well, as a rule, only when the system is depressed. Carrion eating birds and beasts are probably kept immune by their powerful secretions and wonderful digestion. Indigestion is dangerous. Conclusions as to treatment are: to maintain cleanliness, good lighting and ventilation; supply pure, well-cooked food and pure water; use disinfectant washes for mouth, nose and throat; care for the teeth; keep the bowels free and active; assist defective digestion by artificial aids and keep the tissues nourished; in short, do all possible to maintain the normal function of every organ. With anything like an even contest between living tissue cells on one hand and microbes on the other, the latter are likely to be summarily disposed of. Aid may be given by antiseptic remedies, antidotes and antitoxins. Tonics and stimulants brace up depressed tissue cells and strengthen the nervous system during the contest. In order to meet the indications, it is all-important that the physician be fully aware of all that is going on, both within and without.

DR. H. J. HERRICK spoke of conditions in existence during his student days, forty years ago. He had been accustomed to trace pathology from normal conditions. The views then held are found in the writings of Williams, Paget, Watson and others, and are as valid now as then. Disease is a departure from normal nutrition and may be caused by germ action, improper nutriment and other influences. Disturbance of digestion brings improper assimilation and nutrition. Treatment is still much the same as before the promulgation of the germ theory. Putrefaction and fermentation are arrested. There is in the delicate organism a *vis resistantia* which opposes infection of the healthy individual, but what agent from without will destroy the infection of small-pox, measles and scarlet fever after they have entered the body? The first essential elements of health are the secretions. The rational method of treating disease includes proper food, good air etc., and is based on the principle of blood making and blood purifying. He was surprised at the little knowledge of pathology shown among students of to-day. Diseases cannot be classed as plants and animals. The disease process, the disturbed condition of nutrition which constitutes the disease, is what causes death, not the disease as an entity. The morbid agent disturbs the process of nutrition.

DR. L. B. TUCKERMAN said that we were apt to swing with the pendulum from one extreme to the other. A great deal depends on microbes, a great deal depends on general conditions. If we fix attention on microbes alone or on general conditions alone we are likely to fail. The old

adage, *in medias res etc.*, is good here as elsewhere. The germ theory of disease has given more certainty in treatment. When we understand that the disease is self-limited, it gives us more confidence.

DR. J. P. SAWYER: The theories of a long time ago did not carry us far, but showed a tendency to swing in a circle. Still we want to hold fast to all that is good in Paget and others of the old time. Protoplasm has the faculty of responding to external influences and responds to the specific action of certain drugs. Drugs may counteract specific morbid action, but we must have also good hygiene and physiologically acting organs. A theory of general rational treatment of microbic diseases it is impossible to frame. The physiologic activities should be conserved by all possible means, prophylaxis is to be furthered. It is right to be slow in accepting new claims. Koch's remarkable induction was scientifically or theoretically correct, but was practically not adapted to most cases as found. In diphtheria, under all previous plans of treatment, we did not quite reach the point to which the use of antitoxin has brought us. In tetanus, we hope to have an antitoxin. In erysipelas, experiments promise much. At the present time there has been a good deal of failure.

DR. J. E. WOODBRIDGE: The demonstration of the action of blood serum of a typhoid patient on cultures of typhoid bacilli, given by Dr. Johnson of Montreal before the American Public Health Association, was of great interest. If an early and certain diagnosis of typhoid can be made, we can know certainly how to judge of treatment. The serum destroys the activity of the bacilli, and the contrast between the original culture and that with the serum added is striking, the latter showing the bacilli immotile and gathered in bunches.

DR. C. W. SMITH: Knowledge has progressed from great things to small. Astronomers studied and learned much of heavenly bodies before the microscope was known. Students now study pathology macroscopically and microscopically. Morbific agents are various. Inflammation may be caused by the irritation from carbolic acid, from electricity, or from pure cultures of germs. The organism is affected by various substances of vegetable origin, morphin, atropin, the toxins of a culture of bacilli. Strychnine uniformly produces convulsions—certain bacilli uniformly produce convulsions; the argument is the same whether the plant can be seen readily or only with the microscope.

## MEDICO-LEGAL SECTION.

*Regular Meeting, Oct. 15, 1896.*

The Vice-President, MR. ALEXANDER HADDEN, presided. DR. C. W. SMITH read a paper on "Duality of the Brain," (*see page 27.*)

In the discussion which followed, JUDGE J. M. JONES mentioned a case of a young man who was injured by a fall from a carriage and afterwards disappeared. He was finally found in another state engaged in his former occupation, but did not remember his family and friends. The speaker asked if phrenologic theories were recognized among medical men. Duality of existence does not seem to imply or result from brain duality. We are made up of all kinds of thoughts and propensities, good and bad. Variety of ability to do different things indicates a difference of function of different parts of the brain. Mind action may be clearer and lead to better results when not hampered by side action and incidents and impressions of waking hours.

MR. HADDEN told of an incident in his own experience, of unconscious cerebration, upon an occasion when he had been unable to complete a certain train of reasoning after intent and earnest thought on the subject, but after two hours of sleep, awoke with the sought for plan clearly formulated in his mind. He asked if such phenomena were explainable by the theories of duality.

DR. A. R. BAKER related the case of a man who had come under his observation as an applicant for a pension. He had been in the army, was married and afterwards disappeared for years, and when found in the west, did not remember anything of his family, but talked of his western life. He became insane and died so. Unconscious cerebration exists and is a faculty susceptible of cultivation and should be cultivated.

DR. C. J. ALDRICH: A person looking in a mirror to watch the movements of his eyes, fails to see the movement. So in attempts to inspect the workings of his own mind he fails. The statement that one-half the brain has been removed and the other half has then taken up its functions is misleading. In the lower animals the ganglionic system is more highly developed and a cerebral loss more easily borne. Cases of dual existence are known. The case of the Manxman (reported in *Brain*, 1895) was studied with great care. In one state he knew only the Manx language, in the other, only English. Goldsmith, when dissipating with his companions, was one character; when alone, writing, quite another. Poe's case was perhaps similar. A case occurred in Oberlin of a man injured by a kick, who,

after the injury, began speaking Polish. He had not used the language since early childhood, when he had entered an orphan asylum, and could not ordinarily speak Polish. The shape of the head is no indication of brain qualities. The most beautifully shaped head known to the speaker was on a man who had only one faculty, that of remembering dates. The perfect brain is one in which all functions act in harmony. The theory advanced by Dr. Berkley of Baltimore is that when the brain cells are well nourished and swollen, the dendrites of neighboring cells are in contact. When the cells are wasted or exhausted and shrunken, as by alcohol, the dendrites pull away from each other, and the cells so separated cannot act together normally. He had been accustomed to define character as that which one knows himself to be, reputation as that which others consent to suppose he is.

DR. A. J. BROCKETT related an incident in his personal experience, during his childhood, of unconscious cerebration, where the position of a lost knife was clearly shown in a dream, and soon afterwards exactly verified.

DR. JOHN F. HOBSON said that in the hypnotic state there is no recollection of things in the normal state. When the state is kept up for a long time it may be difficult to determine which is normal and which induced.

DR. C. W. SMITH told of a lady who met with a severe affliction in the loss of her husband, a lieutenant with Gen. Custer, in the battle of Little Big Horn, became partially insane and went among the Indians, imbued with the idea that her husband was still living among them in captivity. When found, two or three years after her disappearance, she had, at first, no recollection of her name or former life or friends, but later she recalled them. There may be inhibition of memory of most familiar things, as one's name, from fear. In *petit mal* the patient loses consciousness for a brief interval and may do things not recalled later.

Certain cells seem to be concerned in recollection. Memory might be considered to depend upon a repetition of vibrations which had occurred at the time of the original experience. In unconscious cerebration, sensations by unusual paths lead to the conception as a whole. The essential element in memory is association of ideas.

## Correspondence.

WASHINGTON, D. C., *October 21, 1896.*

MY DEAR DR. KELLEY:

Please accept my thanks for the courteous and unprejudiced review of "Typhoid Fever and its Abortive Treatment." Will you pardon me if I tell you that I did not believe that there was a medical writer in Cleveland who could or would write so fair a criticism of my work, or who could present so much food for thought in as brief a review.

I must, however, beg space enough in your excellent journal to correct one or two erroneous impressions which your article unconsciously to yourself, conveys. To show what I "consider aborting a case of typhoid fever" you quote statistics from a chart that shows the average daily temperatures of 128 cases of the disease (misprinted 122 cases.) Now, although most of these cases were aborted according to the most classic definition of the word, they are not the best possible representatives of aborted cases, the best examples of which very rarely present pathognomonic symptoms of the disease and consequently these cases cannot be reported in evidence, vice-versa, the cases which present pathognomonic symptoms of typhoid fever have usually been ill too long to admit of their attacks being cut short at once. Hence the chart of average daily temperatures does not show what I mean by aborted cases of typhoid fever. It shows only the rapid decline in the temperature curve in one hundred and twenty-eight cases of the disease in which the treatment was instituted so late in the course of the malady that pathognomonic symptoms were present.

In this connection may I also make a correction in your report of my paper that was read before the Cuyahoga Medical Society which says that I took as a basis about twelve hundred cases of typhoid fever that had been reported by 279 physicians. This should read "more than four thousand cases," the original reports of nearly all of which I had with me and by which I requested the members to verify my statistics and the quotations in favor of the abortive treatment.

I am, my dear Doctor, most cordially yours,

JOHN ELIOT WOODBRIDGE.





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FREDERICK K. SMITH, M. D.

A NEW VOLUME (Vol. XII) commenced with November, 1896. Subscriptions can begin at any time. Back numbers can be supplied.

ORIGINAL COMMUNICATIONS, reports of interesting cases, local news of general interest to medical men, are solicited from all readers. It is understood that original matter sent to the Gazette is not to be published as such elsewhere.

ALL MATTER INTENDED FOR PUBLICATION, all books and pamphlets should be addressed to the Editor at 1150 Superior Street. All communications relating to business should be addressed to The Medical Gazette Publishing Co., 129-131 Euclid Avenue.

CHANGES IN ADVERTISEMENTS or addresses must reach us not later than the fifteenth day of the month preceding issue to be corrected in the current number.

## Editorial.

### THE BEGINNING OF VOL. XII.

Looking backward through the eleven years which have passed since the first number of the first volume of the GAZETTE saw the light, one is moved to gratitude toward the profession of Ohio and adjacent states for their appreciation of our humble endeavors, and the moral and material support bestowed upon this enterprise. Looking forward hopefully toward the future we only ask a continuance of your recognition of merit in these efforts, and for that generous appreciation which gives encouragement to earnest work.

To our contributors thanks are due for the rich products of their labor which have been so freely brought to this storehouse and exchange for medical knowledge; and we bespeak from them for the future their best thoughts and most valuable experiences.

We have long pondered over plans to extend the influence and enhance the usefulness of the *GAZETTE*, and some months ago began a series of steps with that end in view. Our latest, though not by any means the final step, was the formation of a stock company which now owns and from this time on will operate the *GAZETTE*. The company is composed of physicians well known in this vicinity, who have the best interests of the profession at heart, together with a few substantial business men. It is confidently hoped that by the employment of capital and united strength, better results can be obtained than were possible by individual efforts. Thus, with a new prospect and a brighter, than ever greeted her before, the *GAZETTE* enters upon Volume XII.

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#### DR. CLARK TOWNSEND.

Dr. Clark Townsend died at his home, 39 Holyoke Place, Tuesday morning, Oct. 27, 1896. Dr. Townsend had not been in good health for some weeks, but he was not thought to be seriously ill, and he had attended to his work until a day or two before his death. On the morning above mentioned he left his bed to go up stairs to the bath room, and in a very short time was heard to fall. When assistance reached him he was unconscious and breathing stertorously, and died in about fifteen minutes. The cause of death was undoubtedly apoplexy.

Clark Townsend was born in Waterford, Vt., June 8, 1855. He was the son of Lysander and Amanda (Streator) Townsend. The father died when Clark was nine years old, leaving a widow and three children, of whom Clark was the eldest. His early life was spent in his native town, and the family being left without means, this period of his life was one of privation. In the struggles of this part of the family's history, Clark manfully bore his part, cheerfully doing whatever he could find to do that would contribute to the support of the little family, attending the district

school for a few weeks each year and working with his hands the balance of his time to help his mother and younger sisters. Early in life he was seized with a desire to get an education, but how to accomplish it was a serious problem, for he was the principal bread winner of the family, and if he went to school, not only must his expenses be provided for, but also the support of the family. However, in 1872 he entered St. Johnsbury Academy and was enabled to pay his expenses there by work that he secured about the village that could be done outside of school hours. He also took care of the school buildings for a considerable portion of the four years that he spent in the institution, and in this way he was able to take the four years course at the academy, graduating in 1876. In the autumn of that year he entered the medical department of Dartmouth College, remaining there one year, working his way through the year as he had done at St. Johnsbury.

In 1877 he came to Cleveland and entered the Medical Department of Wooster University, where he studied two years, graduating in 1879, and was the class valedictorian. He then entered Charity Hospital and filled the position of house physician creditably to himself and with perfect satisfaction to the hospital. He left the Hospital in 1880, and since that time has been engaged in the practice of his profession in this city. Dr. Townsend was a man endowed with good abilities and more than average common sense, which counts for much in the practice of medicine. Possessed of a warm, sympathetic nature, he made friends wherever he went, and his genial manner and innate goodness of heart, as well as his ability as a physician, won for him a high place in the esteem of those who entrusted themselves to his care and made all who were associated with him his friends.

In 1884, Dr. Townsend married Miss Emily Huss of St. Johnsbury, Vermont, who with one child, a boy of seven years, survives him.

H. J. LEE.

---

#### DR. JOSEPHUS CRAFT.

Dr. Josephus Craft was born at Carmichaels, Pa., Dec. 25, 1840, graduated from the Wooster Medical College in 1867, and began the practice of his profession in West Salem, Ohio, where he remained three or four years. Here he married Miss Clara Humiston.

He then removed to Worthington, Minn. Here, in addition to a large general practice, he acquired an extended reputation as a railroad surgeon.

In 1884 he came to Cleveland and established himself in the East End. His practice steadily increased and he was highly esteemed in the community. He was a member of the Cleveland Medical Society since its organization.

He was well informed in the science of his profession and brought to the bed-side of the patient not only a well stored mind, but a sound judgment, a cheerful and sympathetic manner, which secured confidence, hearty good will and esteem from those he attended.

In the death of Dr. Craft, which occurred on the seventeenth of October, the profession sustained a serious loss, for his ideals, both in and out of the profession, were high.

He was for many years a ruling elder in the Presbyterian church, a consistent Christian gentleman, whose life is worthy of imitation and whose death is deeply deplored by all who knew him.

His wife and children have the sincere sympathy of his professional friends.

P. H. SAWYER.

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#### PUBLISHERS' ANNOUNCEMENT.

Our friends and patrons will be interested to know that a corporation, "The Medical Gazette Publishing Company," with a capital stock of ten thousand dollars, has purchased the *GAZETTE* from Dr. Kelley, and will continue its publication. However, Dr. Kelley retains an interest in the journal and has consented to continue his efficient services as Editor. The company has no intention nor desire to alter the character of the *GAZETTE* nor change those traits of loyalty to the profession and zeal in scientific progress which have won their esteem and made the journal what it is to-day. We only intend by the use of capital and a widely extended influence to increase its power and develop its possibilities. For Business Manager of the *GAZETTE*, the company has chosen Dr. Frederick K. Smith, Mr. C. E. Blanchard's connection in that capacity having been severed.

## Periscope.

### NEW PROCEDURE IN GASTRO-ENTEROSTOMY, ENTERO- ENTEROSTOMY AND CHOLECYST-ENTEROSTOMY WITHOUT OPENING THE INTESTINAL TUBE.

This new procedure, suggested by M. Soulegoux, consists in:

1. With a special forceps constructed for this purpose pressure is made on an area equal in each wall, being the area which is to be destroyed. The crushing forceps causes death of all the tissue excepting the serous coat.

2. For destroying this last it is lightly touched with caustic potash.

3. Then making a sero-serous suture around the sphacel—the Lembert suture preferred, the abdomen is closed, and in 48 hours at least, the tissue, crushed and cauterized, will slough and separate, thereby establishing the communication.

This procedure has the advantage of not opening the intestinal tube at the time of operation. The author's experiments on dogs were very successful, and had made it four times on patients—two of whom died. The autopsy showed the operation to have been successful, locally at least.

In one case in which the patient died on the sixth day, the intestinal communication was complete—the slough had separated completely. Tumor diagnosed with the aid of the X rays. Dr. Rutherford reported, in *Glasgow Medical Journal*, a case of tumor of the foot and the diagnosis lay between enchondroma and exostosis. By the use of the X rays the translucency, therefore the cartilaginous nature, of the tumor was demonstrated.

### CONSERVATION OF THE FOOT IN OSTEOMYELITIS.

Professor Ollier concludes an interesting article on "conservation of the foot in cases of osteomyelitis of the tibia extending to the astragalus and other bones of the tarsus," in the current number of *Revue de Chirurgie*, as follows:

1. The simultaneous ablation of three-fourths or four-fifths of the tibia and the entire astragalus have resulted under the author's treatment in regeneration of the tibia and the reconstruction of a tibio-tarsal joint, firm and movable, of the same type as the original.

2. The solidity of the new joint and the functional aptitude are dependent upon the regeneration of the tibia so

that not only will there be an osseous column capable of sustaining the body weight, but also a salient malleolus. This operation should be performed only in subjects rather young and in good general health.

3. During the developmental period, operations are more favorable. Indications for amputations in this disease are in proportion to the age of the subject.

4. In osteomyelitis it is not necessary to remove the entire bone, for there is usually a crust of living bone around some part of the periphery of the shaft—usually at the epiphysis there is considerable bone that is relatively healthy, it may be infiltrated with pus; there is usually an intact blood supply from the overlying periosteum. These remnants of bone are the points from which new bone is formed, formed in much the same type as the one destroyed.

5. The bone directly under the periosteum should be most carefully scrutinized before it is sacrificed, the tendons and their attachments guarded very carefully. After removing the dead bone, the cavity must be cautiously sterilized, then packed with iodoform gauze.

6. In this operation of removal of so much or all the tibia, the fibula, it must be remembered, not losing any of its regenerating bone, will develop faster than the tibia and thereby cause bowing of the leg. This may be avoided by resecting the external malleolus or resections of other parts of this bone later.

G. W. C.

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### **Among Our Exchanges.**

When *Salol* first came into use, we ventured the prediction that it would be found by no means as harmless as its boomers maintained: that as it contained forty per cent. of carbolic acid, the total amount given per day should not exceed the amount of carbolic acid which a healthy pair of kidneys could get rid of comfortably within the twenty-four hours. At length this fact is becoming impressed on the profession, and it may be safely assumed as a principle guiding its administration that *Salol*<sup>1</sup> is absolutely contraindicated in cases where there is either acute or sub-acute nephritis, and where there is chronic nephritis, it should be given with the greatest caution, if at all. DR. JAMES TYSON, of Philadelphia,<sup>2</sup> lost a case after a five grain dose of salol, given with ten grains of sub-nitrate of bismuth to control a severe diarrhœa. The diarrhœa promptly ceased, but the urine (which had been copious) suddenly decreased and was

1 Therapeut. Gazette, Aug. 15, '96.

2 Univ. Med. Magazine, April, '96.

finally wholly suppressed. All means proved futile to restore the renal function, and the patient died two days later. Another case he almost lost. It was a woman pregnant with her second child and suffering with puerperal nephritis. The urine was almost solid with albumin, very dark in color, containing a large quantity of casts and of altered hemoglobin. Under appropriate treatment the urinary conditions greatly improved, but later on, diarrhea began, and on the administration of a like dose of salol and bismuth as in the case preceding, the urine again became dark in color with all its abnormal characteristics reinforced. Fortunately, in this case the renal function was restored, and the mother survived after the delivery of an eight months' child. Under any circumstances the sudden checking of an active diarrhea throws an added burden on the kidney, and where the kidney is impaired in any way, a remedy is contra-indicated for diarrhea, which, like salol, tends to embarrass or inhibit the renal function. And in acute or sub-acute *nephritis*, the old remedy of free venesection or depletion by leeches is beginning to find favor again. Especially is it advocated in the sub-acute nephritis of *scarlatina*, by DR. ROSWELL PARK, of Buffalo,<sup>3</sup> as preferable to either catharsis or diaphoresis, for the reason that a bleeding of thirty-two grams (fd. oz. i), an amount which two leeches will easily withdraw, removes as much from the body as would 280 grams of a liquid diarrhea or 100 litres of perspiration, and that without loss of valuable time. DR. CARL SEILER, of Philadelphia,<sup>4</sup> insists that the best effect of local douches, nasal or vaginal, and of antiseptic applications to wounds and other cavities can only be obtained when attention is paid to the *specific gravity* of the fluid, which should be that of normal salt solution. Wet dressings which, when of normal specific gravity, subdue pain and allay congestion, if of improper specific gravity, produce pain and congestion by causing active endosmosis or exosmosis as the specific gravity of the liquid may be too low or too high. Undiluted glycerin causes a sense of burning and congestion when applied to chapped hands and arms, but when diluted to the proper density so that osmosis is prevented, no such discomfort results from the application. In most cases, the neutral, unirritating sodium chloride is the best agent with which to obtain the desired specific gravity—fifty-six grains to the pint of water makes the normal solution, to which may be added the other ingredients as desired, but if the other ingredients be bulky, such as sodium bicarbonate or sodium biborate or both, it is best to first make the alkaline solution of the desired strength and then bring it up to the required specific gravity by the

<sup>3</sup> The Corpscle, June, '96.

<sup>4</sup> Med. and Surg. Reporter, May 23, '96.

subsequent addition of sodium chloride. In that form of *gall-stone* disease characterized by frequency rather than severity of attacks, when the patient's general health is impaired by loss of sleep, poor appetite and the effect of narcotics taken to relieve pain, DR. DUNIN<sup>5</sup> finds potassium iodide in five or ten grain doses twice daily, a very efficient remedy. Patients begin to feel better in the course of a few days and in three or four weeks they consider themselves cured. The doctor is in doubt whether the drug acts by favoring the solution of the stone in the bile or by relaxing the biliary passages so as to facilitate the passage of the calculi, but having used it in all his cases of gall-stone for the last four years, the cases numbering upwards of a hundred, he has no question as to its beneficial effect, especially in the class of cases above cited. It is maintained by DR. FRANK W. ROOT, of Kent, O.,<sup>6</sup> that we are in the habit of giving *morphia* in too large doses, and with too long intervals between doses, to produce the best effect of the drug. His method of using morphia has been as follows, for the last five years: one-eighth grain sulphate of morphia with a grain of boric acid is dissolved in four teaspoonfuls of water; to one teaspoonful of this solution are added nine teaspoonfuls of water. Give the patient (infant or adult) a teaspoonful—equal to one-three-hundred-and-twentieth of a grain every five or ten minutes till the desired effect is obtained; in this way none of these are unpleasant secondary effects that follow the giving of large doses, so that it may be safely and profitably used to control pain and restlessness, even in such diseases as *cholera infantum*, *mania a potu* and the like, where it is absolutely contra-indicated in full doses. The further study of the *malarial* parasites, tertian, quartan, and estivo-autumnal, will probably throw a good deal of light on the question why the standard anti-malarial remedies fail so often to give satisfactory results. Clinically we know that the alkaloids of cinchona are most efficacious in the tertian form of ague, while they often seem wholly inert in the more irregular manifestations that disease, which though we now know to be water-borne, we shall probably persist in calling "malarial" by reason of the force of habit and the firm place the word holds in the common speech. Where quinine fails, we should not fail to think of *picrate of ammonia* which is of especial value in cases characterized by obstinate neurotic symptoms, the protean forms of malarial neuralgia. So intensely bitter is the drug that it is best given in pill form, one-half to one grain with extract of gentian or taraxacum. Besides rendering the urine of an orange-yellow which it always does, the drug sometimes colors the

5 Therapeut. Wochenschrift, July 19, '96.

6 N. Y. Med. Jour., Apr. 18, '96.



sweat and the skin, and sclerotic coat of the eye, and the mucous membrane of the mouth now and then take on a yellowish hue resembling jaundice. According to DR. JOSEPH ADOLPHUS, Atlanta, Ga.,<sup>7</sup> muriate of ammonia in ten grain doses in solution helps the therapeutic action of the picrate of ammonia, while it also causes the yellow color of urine and skin to disappear sooner; and in obstinate malarial neuralgias, he is in the habit of prescribing as high as a grain of the picrate in pill form as above, four times a day. While the medical profession is eager enough to "prove all things," it doesn't always seem as strenuous as it might be to "hold fast to that which is good," and not infrequently an active practitioner stumbles onto a good old procedure which strikes him with all the force of a new discovery. DR. C. M. FERRO, of Tracy, Minn., has thus re-discovered flax-seed tea, and becomes enthusiastic over its satisfactory results as an enema in cases of irritable *hemorrhoids*. He says:<sup>8</sup> "Some authors advise the removal of hemorrhoids whenever the consent of the patient is obtained, no matter whether they happen to be in a specially aggravated condition or not. My own practice is to wait until a particularly irritable or inflamed condition has been subdued and the parts assumed a more quiescent state. This is secured by advising the patient to secure one daily movement of the bowels by the injection of a pint or two of a mucilaginous decoction of flax-seed, care being taken to strain the fluid, or semi-fluid, so that not a seed is allowed to pass the strainer. This enables the patient to secure an evacuation of the contents of the bowels in the easiest and most gratifying manner that can be conceived. It lubricates the mucous surface of the bowel and permits fecal masses to be expelled with the slightest degree of straining, and consequently less irritation of the inflamed and painful hemorrhoids." Of course, when the irritation subsides he operates, but he might have said that perseverance in the use of the enema, aided by a mild tonic laxative to stimulate the muscular coat of the intestine, will in many cases keep the irritation in permanent abeyance and avoid any necessity of operation.

L. B. T.

<sup>7</sup> Georgia Eclectic Med. Jour., Aug. '96.

<sup>8</sup> Northwestern Lancet, June 15, '96.

## New Books.

A TREATISE ON APPENDICITIS. By John B. Deaver, M. D., Surgeon to the German Hospital, Philadelphia. Containing 32 full page plates and other illustrations. Philadelphia: P. Blakiston, Son & Co. 1896.

In this monograph, the avowed intention of the author has been "to emphasize the etiology, symptomatology and

special technique of the operative treatment," basing his observations upon experience in over 500 cases. However, he has begun at the beginning and traced the history of his subject, and then devoted a chapter to Anatomy. Etiology, Pathology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, Treatment, Complications and Sequellae and After Treatment are then in due course considered. He has paid great attention to differential diagnosis in order that not only the usual symptoms may be recognized, but the anomalous be detected under all circumstances. His treatment might be summed up in three words—invariable early operation. Into the technique of operation he has entered with great minuteness, the descriptions being made still more distinct by beautiful colored plates illustrating each step of the work. The plates illustrating the pathology are equally good. The whole volume is a fine specimen of the bookmaker's art, being clearly printed in large type on heavy paper and bound in heavy boards with beveled edges.

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**PTOMAINS, LEUCOMAINS, TOXINS AND ANTITOXINS: OR THE CHEMICAL FACTORS IN THE CAUSATION OF DISEASE.** By Victor C. Vaughan, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry in the University of Michigan, and director of the Hygienic Laboratory, and Frederick G. Novy, Sc. D., M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. Third Edition, revised and enlarged. Lea Brothers and Co., Philadelphia and New York.

This book is more or less familiar to the profession, through the first and second editions. It has now through the presentation of recent discoveries grown to the size of 604 pages. The title of the book is something of a misnomer as not only the chemical factors causing disease are discussed, but also the use of specific chemical agents for the prevention and cure of disease. No subject is of more vital interest to the profession of our time than those included in the scope of this work and no writers to-day are abler to present them to the physician.

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**PRACTICAL DIAGNOSIS: THE USE OF SYMPTOMS IN THE DIAGNOSIS OF DISEASE.** By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics in Jefferson Medical College in Philadelphia, etc., etc. Illustrated with 191 engravings and 13 colored plates. Philadelphia and New York: Lea Brothers and Co. 1896.

One is at once reminded of Fothergill's *brochure* on Semeiology, as he sees the style of Hare's work; for notwithstanding the expressions of some of the reviewers to the contrary, the scheme adopted here is not by any means

new, though it has been less commonly used than the reverse method.

One way is to proceed from the disease present or supposed to be present to describe the group of symptoms belonging thereunto, and see how they coincide with those found in the patient. The other plan and that adopted in this book is to describe the symptom and from this trace back to the disease causing it—obviously the more natural and direct method of procedure in practice, and one which saves a great amount of repetition in a treatise.

This work is fully up to the plane of any which have preceded from the pen of this prolific author and is to be commended for its practical utility.

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- A **MANUAL OF PHARMACOLOGY AND THERAPEUTICS.** By William Murrell, M. D., F. R. C. P., Physician to and Lecturer on Pharmacology and Therapeutics at the Westminster Hospital, Late Examiner in Materia Medica in the University of Edinburgh, and Examiner in Materia Medica and Pharmacy to the Conjoint Board of the Royal College of Surgeons of England and the Royal College of Physicians of London. Revised by Frederick A. Caste, M. D., Member of the Committee for Revision and Publication of the Pharmacopeia of the United States of America; late Lecturer on Pharmacology at Bellevue Hospital Medical College, etc. New York: William Wood & Co. 1896. 516 pages.

In perusing this book, we were tempted to treat our readers to a few specimen paragraphs. But on attempting to make the selection, the paragraphs grew into pages, and there seemed to be no place to leave off. Pharmacology is usually considered a dry subject, and therapeutics is regarded by the student as none too easy, but this book, while sound and thorough in its teaching, is as hard to lay down as a novel, so entertainingly is it written. It contains the gist of the author's lectures at Westminster Hospital and is intended for students preparing for examinations, but the therapeutic side has been considered in a way which makes it valuable to practitioners desiring to keep up with modern treatment. The reviser's labor in adapting the book to American readers has been well done.

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- A **PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS.** By Roberts Bartholow, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; Author of a Treatise on the Practice of Medicine; of a Treatise on Medical Electricity; of a Manual of Hypodermic Medication; of the Russell and Jewett Prize Essays; and Prize Essays of the American Medical Association; and of the Rhode Island Medical Society, etc. Ninth Edition. Revised and enlarged. New York: D. Appleton & Co. 1896.

Since 1876, Bartholow's *Materia Medica and Thera-*

peutics has been in the hands of physicians and students. The first edition seemed to combine the advantages of the older—the empiric methods of study, and the newer, or physiologic. But while it entered sufficiently into the physiologic action, it did not tire the reader with what a young friend of ours designated “dog-poisoning” therapeutics. It was also brief in botanical and chemical details which belong rather to the druggist than to the physician. Instead of giving long lists of opinions from various authorities, it gave an opinion of the author's own, apparently warranted by a consideration of all the facts, and this was very satisfactory to the reader. Moreover, the work was very practical in its teaching, and in this way helpful to the student and young practitioner, and was duly appreciated on this account. One edition after another was steadily called for. The eighth issued in 1893 included the changes made in the revision of the U. S. Pharmacopea, and the metric system. This, the ninth edition, has had to deal also with the new synthetic remedies which organic chemistry is pouring upon us. The important ones—those which bid fair to be found permanently useful have been selected and handled with discrimination and judgment. This edition, like its predecessors, will find a ready market.

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#### PAMPHLETS RECEIVED.

ON THE BEHAVIOR OF ALLYLMALONIC, ALLYLACETIC AND ETHYLIDENE-PROPIONIC ACIDS WHEN BOILED WITH CAUSTIC SODA SOLUTIONS. By John G. Spenser, M. D., Cleveland. From *Journal American Chemical Society*.

DERMOID TUMORS OF THE CORNEA. By Albert Rufus Baker, M. D., Cleveland. From *Journal American Medical Association*, October 17, 1896.

ON SPORADIC CRETINISM IN THIS COUNTRY AND ITS TREATMENT. By John Thomson, M. D., F. R. C. S. Edin., Edinburgh. From *British Medical Journal*, September 12, 1896.

NUOVO CONTRIBUTO ALLA CURA DELLA TUBERCULOSI POLMONARE CON DE INALAZIONI D'OLIO ESSENZIALE DI MENTA. Del Tenente Colonnello Medico Dott. G. M. Carasso, Direttore dell' Ospedale Militare di Genova.

PRACTICAL POINTS REGARDING ALBUMINURIA. By David Inglis, M. D., Detroit.

NOTES ON INGUINO-SCROTAL CYSTS. By Thomas H. Manley, M. D., New York. From *The Medical News*, July 11, 1896.

INGUINAL AND SCROTAL CYSTS, SIMPLE AND COMPLICATED IN INFANTS OR YOUNG CHILDREN. By Thomas H. Manley, New York. From *American Medico-Surgical Bulletin*, September 12, 1896.

- LUMBAR LOCALIZATION.** By L. Harrison Mettler, A. M., M. D., Chicago. From *Medicine*.
- THE DIAGNOSIS OF TUBERCULOSIS FROM THE MORPHOLOGY OF THE BLOOD.** An Original Research, with Report of Cases. By A. M. Holmes, A. M., M. D., Denver, Col. From *Medical Record*, September 15, 1896.
- SYPHILIS AS AN AETIOLOGICAL FACTOR IN THE PRODUCTION OF LOCOMOTOR ATAXIA.** By Dr. C. Tracie Drennen, Hot Springs, Ark. From *Alienist and Neurologist*, October, 1896.
- EXTERNAL HEMORRHOIDS, WITH SPECIAL REFERENCE TO THEIR TREATMENT.** By Lewis H. Adler, Jr., M. D., Philadelphia. From *Therapeutic Gazette*, August, 1896.
- THE TREATMENT OF CANCER OF THE RECTUM.** By Lewis H. Adler, Jr., M. D., Philadelphia. From *Univ. Medical Magazine*, August, 1896.
- PREVENTION OF TUBERCULOSIS.** By E. B. Borland, M. D., Pittsburg, Pa. *Journal American Medical Association*, August, 1896.
- SOME REMARKS ABOUT ASEPSIS IN MILITARY SERVICE.** By Lieut. Col. Edward Boeckmann. From *Proceedings 5th Annual Meeting of the Military Surgeons of the U. S.*, at Buffalo, May, 1895.
- SURGICAL STERILIZATION AND STERILIZERS IN PRIVATE PRACTICE.** By Edward Boeckmann, M. D., St. Paul, Minn. From *Journal American Medical Association*, June 6, 1896.
- ACUTE RHEUMATIC IRITIS; WITH CASES.** By A. Britton Deynard, M. D., New York. From *The Post Graduate*.
- A CASE OF TUMOR OF THE THALAMUS, with Remarks on the Mental Symptoms.** By Walter Channing, M. D., Brookline, Mass. From *Journal Nervous and Mental Diseases*, August, 1896.
- A SYSTEM OF OBTAINING AND RECORDING ANTHROPOLOGICAL DATA.** A Part of the Routine Examination of Patients on Admission at the Illinois Eastern Hospital for the Insane. By William G. Stearns, M. D., Chicago. From *The American Journal of Insanity*, October, 1896.

## Notes and Comments.

**Nerve Suture.**—We regret that we had not space to publish at length Dr. A. J. Ochsner's article on "Nerve suture and other operations for injuries to the nerves of the upper extremity," but an excellent abstract made for the GAZETTE by the author will be found in this number.

**Dr. A. J. McNamara** (Wooster '95) has been elected to fill the position of assistant physician at the Cleveland State Hospital, made vacant by the resignation of Dr. B. S. Higley.

**Dr. Thos. H. Manley**, an article from whose pen appears in this number of the GAZETTE, has been appointed Professor of Surgery in the New York School of Clinical Medicine.

**The death of Dr. George Harley** is announced by the London press. It occurred on Oct. 27. Dr. Harley was as well known in this country as in England through his writings on nephritis, diabetes, albuminuria, hepatitis, jaundice, etc. His opportunities were of the best. He studied at the University of Edinburgh, graduating in 1850. He then spent five years in the medical schools of Berlin, Vienna, Heidelberg, Wurzburg, and Paris, and on his return to London was immediately appointed Lecturer on Histology and Practice of Medicine at the University College. Four years later he became Professor of Jurisprudence, and in 1861, physician to the University College Hospital. He was a prolific writer upon medical topics and fertile in devising methods and appliances for use in laboratory work which are now more or less familiar to the profession. It is not so generally known that he took great interest in the reform of English spelling. He died at the age of 67.

**The Cleveland General Hospital Training School for Nurses** held its first commencement exercises on the evening of Nov. 5, graduating Mrs. Mary L. Matthews, Miss Mary E. Johnston and Miss Ellen Spahlinger.

The hospital was beautified with plants and flowers, as well as by the twenty-two nurses who remain in the training school. Instrumental music was furnished by Dr. Lillian Towslee and Mr. Fred Hicks, and vocal by Mrs. Perry. Addresses were made by Dr. Lewis, Rabbi Gries and Miss Kirkpatrick, the Superintendent of the Hospital and Training School. Dr. Parker as Dean of the College of Physicians and Surgeons, under whose management the Hospital and Training School are operated, conferred the diplomas. Mr. W. F. Walworth, President of the Board of Trustees, presented the badges.

**St. Alexis Hospital** is to have a new building to cost \$20,000. It is to be of brick, 138 feet long, 48 wide and forty high. It is intended to accommodate 120 patients. There will be 26 private rooms. The new building will adjoin that now in use, none of which will be removed, and the work of the hospital will not be interfered with during the construction.

**The State Board of Medical Registration** has refused to grant a certificate to Hosea W. Libbey, of Cleveland, and the latter has brought suit to mandamus the Board into issuing the certificate. Libbey states that he has been in continuous practice of medicine in the State of Ohio for forty-two years, thirty-nine of them in Cleveland. The refusal of the Board will not be a surprise to the profession of Cleveland, and we hope the authority of the Board will enable it to hold the position it has taken.

**The Rarity of Hydrophobia.**—In an extensive surgical practice of twenty years, Dr. Louis McLane Tiffany, of Baltimore, has never seen a case of hydrophobia. He says, moreover, that he has never seen a surgeon who has seen a case of undoubted hydrophobia. He thinks that the cases reported as hydrophobia occurring soon after the bite are tetanus, and those following months after the injury are due to meningitis or other disease of the spinal cord.

**A Modification of the Hagedorn Needle** has been devised by Dr. J. A. Dibrell, Jr., of Little Rock. The point and the eye ends are of the Hagedorn shape, but the middle part of the needle is flattened in the other direction so that it can be grasped by an ordinary needle holder and does not require a Hagedorn holder.

**A Suit for \$20,000**, brought by a Mrs. Yinsley for alleged dissection of her husband's body at the Central Medical College of St. Joseph, Mo., has been won by the college. This is the second trial and it is to be hoped the last.

**Dr. S. T. Mercer, of Larned, Kan.**, according to the *North American Medical Review*, claims to be "the original Bryan man." He was the attending physician, and says the boy came into the world howling and kicking and that he has kept it up ever since."

**A Keats' Bed at Guys Hospital.**—It has been proposed (*London Lancet*) to endow a bed in memory of the gentle apothecary who is generally supposed to have been killed by the onslaught of that then "blatant beast," the *Quarterly Review*. The sum of one thousand pounds will be required, and surely this is not too much for the medical and literary professions to raise.

**A New Self-Retaining Nasal Speculum** has been devised by Dr. J. R. Straw, of Ashland, Wis. It consists of three blades which may be fenestrated or solid (for cautery work) upon a straight, square bar. The central blade is stationary, the two outside blades sliding on the bar, and locking on the Lenox Browne principle. The central and one of the end or outside blades clamp the septum, while the other end blade presses outward against the ala of the nostril to be examined. The instrument is described and figured in the *Journal of the American Medical Association*, Sept. 19.

**The Nose and Nausea.**—Dr. C. W. Ingraham (*American Medical Society Bulletin—The Laryngoscope*) claims that the application of a two per cent. solution of cocaine to the mucous membrane of the nose will almost instantly, in the majority of cases, relieve nausea. The reasons why are worked out from a physiological basis.

**Dr. C. A. L. Reed** has been elected gynecologist and abdominal surgeon to the Cincinnati Hospital, in place of Dr. T. A. Reamy, who resigned.

**Delinquents to Pay in Advance.**—Portsmouth (O.) physicians (says *Cincinnati Lancet Clinic*,) have adopted a resolution which requires all delinquent patrons to pay in advance for professional services. A common list for use of all society members has been prepared. Let the good work go right along. Symptoms of the contagious influence are to be treated phlogistically.

**A Special Knife for Trachelorrhaphy.**—Prof. Augustin H. Goelet of the New York School of Clinical Medicine, employs a knife of peculiar construction for denuding the lips of the cervix in the operation of trachelorrhaphy.

He claims that the operation can be completed in one-half the time that is usually consumed when scissors are used for denuding, and that the surfaces to be approximated are more regular and even. With the knife each lip is denuded with one stroke and no trimming is required afterwards to remove superfluous tissue.

The knife, which is a double edged, pointed blade set at nearly right angle to a firm shaft and handle, is made to transfix the cervix beyond the plug of cicatricial tissue and cuts as it is drawn downwards, making a clean denudation.

For inserting the sutures he employs a round full quarter curved needle with a flat spear shaped point which penetrates the dense cervical tissue with ease and never breaks. For suture material he uses silver-wire or silk-worm-gut only, believing that catgut or any other suture which is not absolutely impervious should not be used in the cervix. The chief advantage of silver-wire and silk-worm-gut is that the sutures may be left in the cervix indefinitely or until complete union has taken place.

Catgut absorbs or loosens too soon and is liable to absorb septic matter from the vagina and convey it along the suture track.

Fine chromicized catgut may be used for superficial auxiliary sutures.

**The Editors of Mathews' Medical Quarterly** announce that with the January issue of that publication its name will be changed to "*Mathews' Quarterly Journal of Rectal and Gastro-Intestinal Diseases*." This is a change which has been deemed necessary for some time, it being deemed essential that the title of a medical journal should convey to the reader an idea of its contents, and this has not been the case with its name from the beginning.

There will be no change in the policy of the journal in the



least. The articles which will appear in it will be limited to diseases and surgery of the rectum and gastro-intestinal tract. The journal will continue to be edited by Drs. J. M. Mathews and Henry E. Tuley, and published in Louisville, Ky.

**Brevity of the Umbilical Cord.**—Dr. Guido Bell, of Indianapolis, has undertaken to determine the minimum normal length of the umbilical cord, and its influence upon labor. He considers that many cases of delayed and hastened labor are explained by the influence of a cord of insufficient length. For instance, cases where the labor pains made fair progress during the first and a part of the second stages, and then suddenly become irregular and finally inert. In other cases, the obstetrician may be surprised by a rapid delivery—an examination having indicated that delivery was not near—when, with a few powerful spasmodic contractions, the child is expelled.

He quotes Kaltenbach as stating that if the insertion of the cord is at the fundus, a length of fourteen inches is too short, while in deeper insertion, seven inches is sufficient. But as we are only in exceptional cases able to ascertain the seat of the placental insertion, we must rely on clinical symptoms. The importance of being able to predict delayed or hastened labor has long been recognized and studied, and an elastically retreating head has been claimed as a sign of an insufficient cord which weakened contractions by constantly pulling. When in such a case the obstetrician found a cord of ten, twelve or fourteen inches, he was disappointed, and denounced a most valuable symptom as deceptive. But if he would bear in mind the distance from near the liver, where the fundus uteri is located, to the exit of the pelvis, he would readily see that a length of cord of fourteen inches is insufficient under certain circumstances. Dr. Bell cites cases supporting his view, and advances the statement that labor may be hastened by a short cord, its pulling acting like the whip to the horse. He also mentions a new symptom, namely, a second contraction following immediately upon a strong one.

Concluding, he says: If the obstetrician can exclude abnormality of the pelvis and of the position of the child, he must find the causes of irregular pains within the womb; and if he detects a localized pain during contraction, or "secondary" pains, or an elastically retreating head, then he must assume a relative shortness of the cord. To discriminate between elastic retraction and rebounding as seen in primiparae requires experience.

**Hippocrates the Founder of an Enduring Ethical System.**—It can not truthfully be said of the Father of Medicine that he is a "back number." On the contrary, a perennial bloom

graces all his decisions about the medical life. Men may come and men may go, but his wise eloquence flows on forever.—*Journal American Medical Association*.

The editor of the *Scalpel* enlarges upon this thought as follows: "The Father of Medicine, Hippocrates, has laid down our ethical code for all time. It is the only one we can recognize and have recognized.

It over-rides all modern definitions, whether framed by colleges or leading members of the bar.

It is not a question of *autres temp*, *autres mœurs*. This old pagan knew his duty, and his words, sounding along the corridors of time, appeal to us to-day with all their freshness, because at the root of his words there is the one great element which makes all words valuable and viable, viz., their truth.

The practice of medicine in ancient times was much as it is in the present day; human nature has been much the same in all ages, especially where sex is concerned. Hippocrates knew probably just as much as the College of Physicians of London about abortion and about all the secrets connected with it, and not only about abortion, but about the thousand and one secrets which are brought under our notice, for the life currents have hardly changed; the same weakness, the same suffering, the same vices, the same repentance, and the physician who hears all the sad stories of human frailty is still the same.

We have followed the teaching of Hippocrates and not of modern men and modern manners; we intend to follow it, and we strongly advise all younger members of the profession to read the Hippocratic oath and to adopt it. Hippocrates said:

'I swear whatever in connection with my professional practice or not in connection with it, I see or hear in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art respected by all men and in all times, but should I trespass and violate this oath, may the reverse be my lot.'

The word 'men' here is used in the generic sense and also includes women, and the word 'abroad' also admits of definition, for Hippocrates did not say anything of the law which, even in his time, demanded civic duties of the doctor.

In France, Germany, and all civilized countries, the professional secret is not only privileged, but sacred. In England, with the old school of practitioners, we have been brought up in the same traditions.

There may be a younger school, but we hope it is a very limited one, holding different tenets."

**At the Meeting of the Cleveland Medical Society** held Nov. 13, it was decided to hold the December meetings on the first and third Fridays of the month, instead of the second and fourth, as is customary. This was done because Christmas falls on the fourth Friday this year. At the second meeting to be held in December, (on the 18th), Surgeon General Wyman, of the Marine Hospital Service, is expected to be present and address the Society on some topic relating to public health.

**The American Association of Obstetricians and Gynecologists**, at its ninth annual meeting held at Richmond, Va., elected the following named officers for the ensuing year: President, James F. W. Ross, M. D., Toronto; vice-presidents, George Ben Johnston, M. D., Richmond, and John C. Sexton, M. D., Rushville, Ind.; secretary, William Warren Potter, M. D., Buffalo; treasurer, Xavier O. Werder, M. D., Pittsburgh. Executive council, Charles A. L. Reed, M. D., Cincinnati; Lewis S. McMurtry, M. D., Louisville; A. Vander Veer, M. D., Albany; J. Henry Carstens, M. D., Detroit, and William E. B. Davis, M. D., Birmingham.

The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19 and 20, 1897.

**A Doctor Cannot be Too Careful.**—Bill Nye says: "A doctor cannot be too careful. I once knew a young surgeon to operate for appendicitis on a large, roomy man, and had it not been for a timely autopsy he would not have known to this day that a good twenty-cent cigar dropped out of his pocket during the operation and was sewed up in the patient's annex. Had it not been for the post-mortem, the cigar would have been a dead loss."

**Miraculous Cures.**—Old Orchard, Me., was lately the scene of many remarkable occurrences.—*American Medico-Surgical Bulletin*. At a revival held there under the auspices of the Christian Alliance, many conversions were made, and in a fit of religious enthusiasm, money, trinkets, and other property were freely donated for missionary purposes.

Many miracles were attested by those in attendance at the convention.

Cures were recorded of cancer, poisoning, consumption, and a variety of other diseases, all by virtue of prayer.

Appendicitis is also said to have been conquered by the same means, yet we are prone to continue in our belief that proper diagnosis and proper operation at the proper time will, in the long run, show a much lower mortality than can be claimed by any species of faith-cure.

**Woman's Inferior Sensitiveness to Pain.**—Ottolenghi reports in the Cbl. f. Nerv. u. Psych., No. 7, *Journal of the American Medical Association*, that he has been testing with Edelmann's faradimeter the sensitiveness to pain and the endurance of pain in 682 women. He finds that women are less sensitive to pain than men, and that this sensitiveness is less in early life, increases to the twenty-fourth year, and decreases after that.

The higher classes are most sensitive, and degenerate the least. He found the latter very obtuse to the sensation of pain.

Endurance of pain varies between much broader limits in women than men, reaching a maximum far beyond the masculine limit, possibly due to great "suggestibility" of the female sex.

"General sensibility" reaches the highest point in the nineteenth year.

He concludes from his investigations that sensitiveness to pain stands in close relation to the "psyche," while "general sensibility" depends upon the peripheral nerves. He considers woman's comparative insensibility to pain as a sign of her inferiority to man, as the uncivilized and degenerates are the least sensitive.

He also attempts to prove a connection between this characteristic and her longevity.

**Dr. George M. Sternberg**, Surgeon General of the United States Army, has received the honorary degree of LL. D. from Brown University.

**The Belmont County Medical Society** will hold its meeting this month on the 24th.

**A Bishop Upholds Vivisection.**—Bishop Lawrence, at the last annual meeting of the Massachusetts Medical Society, June, 1896, gave a pointed rebuke to the antivivisectionists of his State, which was wise and timely. The remarks given below contain the bishop's reference to that subject and also a recognition of the debt the commonwealth owes to the altruistic ranks of medicine, *Journal of the American Medical Association*:

"Speaking not only for myself, but also for the great religious sentiment of this commonwealth, I can say that wherever one finds any representative member of this Society, one is impressed, he is humbled, by the devotion of the doctors to their work, by their instinctive love of their profession, by their interest in the scientific lines of their work, and by the service they devote unweariedly to their fellow-men.

The public spirit of the physicians throughout this State in relation to their hospitals, to sanitary movements, and to

all other civic movements which bear upon their profession, is recognized; but I can not quite believe that they are sufficiently recognized by the people. They are doing untold work in all those lines.

The readiness with which the physicians of Massachusetts and of this Society respond to calls, without asking questions as to whether they are to receive money in return or not—and they are sometimes imposed upon—is remarkable. The work is done cheerfully and willingly, and is the best form of charity. I cannot therefore understand how it can be that a great body of people in this commonwealth can so far distrust the great body of these physicians—can so far distrust their tenderness, their humanity, their sensitiveness to pain—as to bring any unwise, unreasonable restrictions to bear upon scientific study as expressed in vivisection. The people of this commonwealth have tender hearts, and though they may be New Englanders externally, they are desirous of seeing that no hurt shall come to animals. At the same time, it seems to me that into no hands can the welfare of lower forms of creation and the question of vivisection be more confidently placed, than into the hands of the recognized medical fraternity of this commonwealth.

**Shrader's Short Southern Stay.**—The Board of Medical Examiners (Regular) was too much for Shrader, the so-called "divine healer," says the *New Orleans Medical and Surgical Journal*, to whom the lay press had been giving so much free advertisement during the last few months.

This fraud and imposter, who first appeared in the Northwest, we believe, met with much success in many localities, pretending to cure all ailments by the 'laying-on of hands,' the use of handkerchiefs blessed by him and analogous means; he charged nothing for his services, but accepted all that was given him—a scheme that must have worked pretty well since he found it useful to have a manager.

The history of Shrader in New Orleans is not long to relate. He arrived here on Friday, Sept. 11. The next morning he held forth at Spanish Fort to only a moderately large audience. At 4 p. m. on the same day he was served with a writ of injunction issued by the Hon. Geo. Theard, judge, at the solicitation of the Board of Examiners, prohibiting him from indulging in the healing art before complying with the law regulating medical practice.

His "manager" saw the wisdom of acquiescing and at once stopped the "healing" art. By Sunday night, healer and manager quietly departed, not as mysteriously, however, as they had been said to have done at other points.

Shrader was not 'in it' with Kennedy.

The active president of the board added another scalp to his belt right after this.

The arrival of one Bellairo, a "magnetic" healer, was heralded in the newspapers by means of reading notices. The professor had engaged a magnificent suite of rooms at the St. Charles Hotel and was ready for the harvest which he confidently expected.

On Monday, the 14th, he was interviewed by Dr. Cocram, the mild but firm secretary of the board, who called the professor's attention to the law and quizzed him about his diploma, proposing at the same time a little examination before the board.

The professor had forgotten his diploma in his other pants' pocket, but said he would get it. He left at night on the 15th.

These occurrences illustrate the advantages of the amendments to the practice of medicine act passed by the last legislature.

By the procedure under the original act, a criminal one, these men might have carried on their swindling business for several weeks before their cases could have been carried to a terminal court. As it is, the injunction stops them short—disobedience would mean punishment for contempt of court.

The amended sections of the law as they now read are published in the "News Items."

It is only fair to call attention to the fact that the law and its enforcement benefits not so much physicians as the general public. To the former, it means only the upholding of the dignity of their chosen profession, to the latter it has meant the saving of several thousand dollars, as it is unquestionable that if they had not been interfered with, the "divine" and the "magnetic" healers would have realized quite a snug sum out of the credulous and superstitious of the community.

**Payment of Physicians.**—What fools we mortals be! In no profession aside from medicine, says *American Medico-Surgical Bulletin*, is it the custom not to expect prompt payment for services rendered, and yet how many professional men infuse even an iota of business methods in the collection of their accounts? Because, forsooth, certain professional men, born with gold spoons in their mouths and therefore not obliged to give thought to the morrow, have set custom of rendering quarterly, half-yearly, or even yearly, accounts; the rest seem to follow like so many sheep, for fear of antagonizing patients. All this is wrong and inconsistent with those business methods which are at the bottom of successful bread-making. Only the man with ample capital can afford to wait six months for payment of accounts.

**Who is Legally Bound to Pay the Doctor?**—This is an important question, writes C. in *The Kansas Medical Journal*. A person gets suddenly sick or is injured. Every sympathetic friend runs or telephones for a doctor, and either gets nobody or a dozen, according to apparent ability to pay. Perhaps the messenger leaves his name or card with instructions to call upon such a person. The doctor goes. Who is to pay the bill? From the nature of his calling he cannot in every case, particularly in emergencies, stop, and like Parnasius and the Captivity, passively look upon the writhing, luckless person before him, and ask who is to be responsible for my bill? We must often act upon appearances and must rely upon implied obligations, when, if it were in any other calling, the difficulty could be obviated by an express agreement prior to the rendition of the services.

The best authority is, that when a messenger leaves his name or card and requests the doctor to call on a patient, he cannot be held to pay the bill, unless he is related to the patient further than a mere friend or neighbor—he must be related by blood, marriage or pecuniary interest. He must be father, son, husband, employer, etc., and have a personal interest in the patient's recovery, or he cannot be held to pay the bill unless he expressly agrees to do so.

Now, here a precaution is necessary.

In most all of the states the promise to pay the debts of another must be in writing and signed by the promisor. So one of two plans must be pursued by the prudent doctor who seeks to hold one person for another person's bill. Either get an agreement from the *promisor* in writing expressly, or by writing him a letter and preserving his reply; or *charge the entire service to him* and thus make it his *individual* obligation and not requiring any writing to sustain it.

In South Carolina, "befo' the wah," a plantation doctor sent for a surgeon in consultation. The surgeon sued the doctor for his fee and the courts ruled that one physician sending for another in consultation, only acts as a messenger—is not liable for the fees of the consultant.

If the father or mother requests the doctor to call upon a son who is of age, but who still lives under the parental roof, the father or mother is not liable unless they expressly agree to become, for the son being of age becomes personally liable for his bills. But in case of a daughter who is of age, but who continues to reside with her parents, it has been held otherwise, or that the parents were impliedly liable for her doctor bills, rendered at their request, and that her separate financial responsibility began only when she left the parental roof.

Parents are liable for services rendered minor children while under the parental roof. When the patient was a lad who had run away from home, but had returned and had

taken sick and died under the parental roof, the father sent for a physician, who sued the father for the bill. The father agreed that his liability for the boy's services terminated when he ran away from home, even though he was a minor. But the court held that if it did then terminate, it revived when the prodigal returned and was taken back again, and so the father was held liable for the bill.

But if a minor child run away from home and is treated *while absent* from home, the minor, and not the parents, is liable, unless they agree to pay it. It seems, also, that even though a minor be taken sick at home, if he has been "given his time," or has become self-supporting—collects his own earnings and has a separate individuality, he, and not the parent, is liable for his bills.

Bills for services rendered the wife, when at home, are considered among her necessities, and are collectible from her husband. But if she is away from home when services are rendered, the husband's liability depends on circumstances. If she is lawfully and rightfully absent, (driven away by cruelty, for instance), the husband is still liable for the bill. But if she is wrongfully and illegally absent, as where she has deserted him and has left his bed and board, and the physician knows of that fact, (either of his own knowledge or by public advertisement), the husband is not liable for the bill.

If an employe of a railroad or other corporation is sick or injured, the doctor cannot recover the fee for his services from the corporation, unless the party calling him to the case was the proper person to call a physician, or had proper authority. A conductor or station agent has not necessarily such authority. But the superintendent or general manager generally has such power, and obedience to summons from him will generally render the company liable for services to employes.

*Liability of Medical Partners.*—Partnerships between doctors are not legally construed as strictly as those between others.

In ordinary mercantile partnerships each partner divides profits and shares losses, and owns an equal part of the property. The agreement or act of one partner binds the firm as effectively as if both were active parties to the agreement. Each is liable for the firm's debts, and his private property may be attached to settle debts of the firm.

Not so with medical partners. Of course any agreement between them to divide fees and expenses can be enforced. But an agreement of one with third parties would not bind the other—a warranty of cure, for instance. Or if one be negligent and damage result, a suit for malpractice would not be against the other unless he participated in the case.



With the public, each man stands with his individual responsibility, notwithstanding the partnership. The relation is generally a mere association for mutual help and to share office expenses and fees.

**Report the Illegal Practitioners.**—Now is the time for the medical societies to assist the work of the State Board of Registration by reporting instances of violation of the law, and collecting evidence. The records of the Probate Court are open for inspection, and it is readily ascertained when any one is practicing without the proper certificate of registration. Some of the county societies have already taken up the subject and invited members to report any instance coming to their knowledge. The matter can be managed by the officers of the society, or very properly referred to the Board of Censors for their action.

Care should be taken that accusations be not made which cannot be proven, and the evidence should be such as would be accepted in a court of law.

#### **Dr. Jenner's Epitaph.**

Within this tomb hath found a resting-place,  
The great physician of the human race,  
Immortal Jenner—whose gigantic mind  
Brought life and health to more than half mankind.  
Let rescued Infancy his worth proclaim,  
And lisp out blessings on his worthy name;  
And radiant Beauty drop one grateful tear,  
For Beauty's truest friend lies buried here.

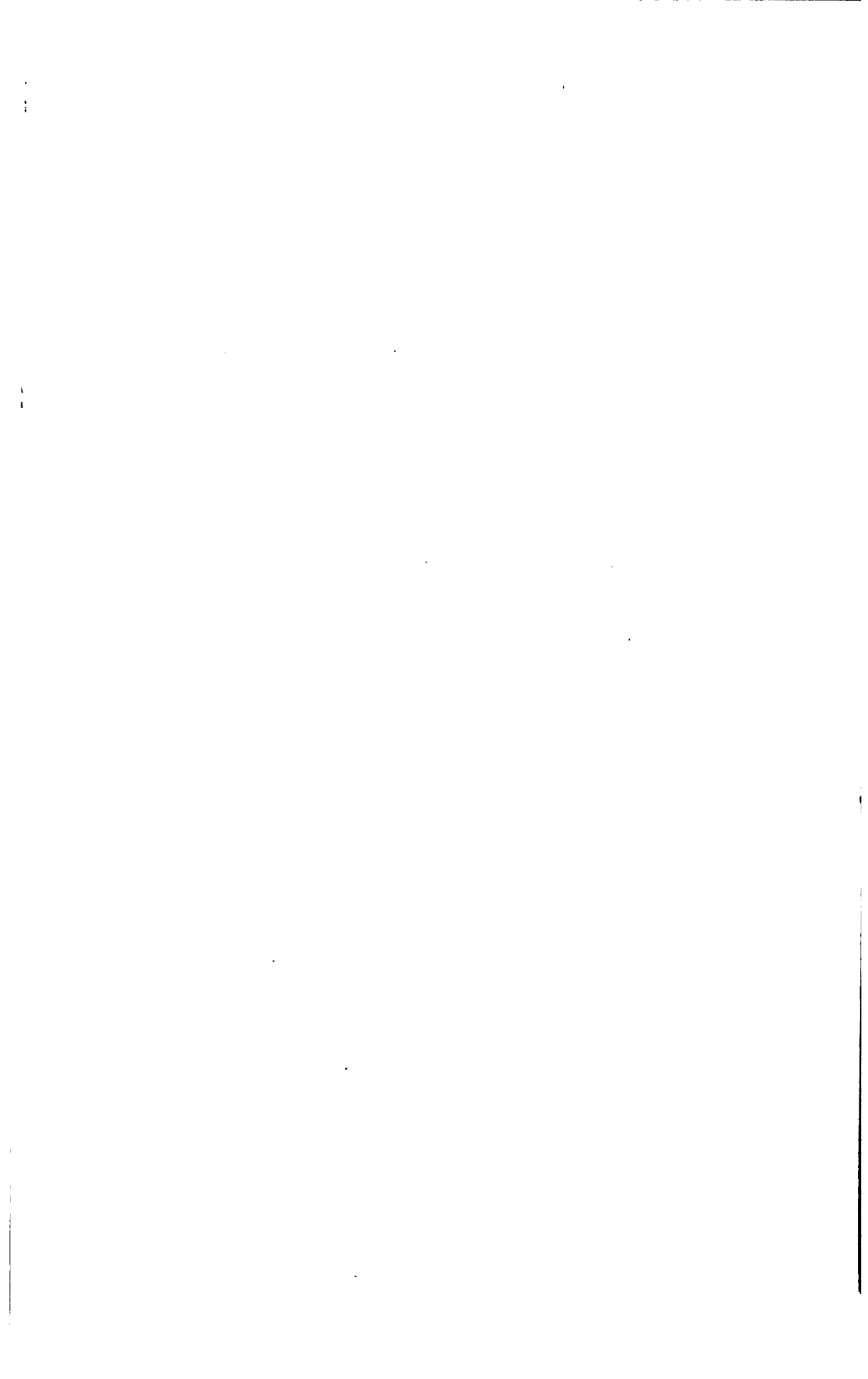
#### **Epitaph on Dr. Samuel Johnson.**

BY SOAME JENYNS.

Here lies poor Johnson, reader, have a care;  
Tread lightly lest you rouse a sleeping bear.  
Religious, moral, generous and humane  
He was, but self-sufficient, rude and vain;  
Ill-bred and overbearing in dispute,  
A scholar and a Christian and a brute.  
Would you know all his wisdom and his folly,  
His actions, sayings, mirth and melancholy,  
Baswell and Thrale, retailers of his wit,  
Will tell you how he wrote and talked and coughed and spit.

#### **What is the Efficient Remedy in the Woodbridge Treatment?**

—Dr. Julia W. Carpenter, in an address before the Woman's Medical Society of Cincinnati, says: "What is it in these remedies that does the successful work? All the statements I have seen on the subject give the efficiency to the carbonate of guaiacol, saying the other medicines have been used, but never with such good results. There is certainly nothing new in the use of calomel in typhoid; while some have thought they achieved good results with it, it failed as often as it succeeded, and the death rate continued about the same. The Brand method, with cold baths, has been the most successful preceding the Woodbridge. Brand reduced his death rate to four per cent., but Woodbridge, with a far less troublesome method, says *he has not had a death in twelve years.*"



TO ILLUSTRATE DR. OHLMACHER'S ARTICLE.

FIG. 1.

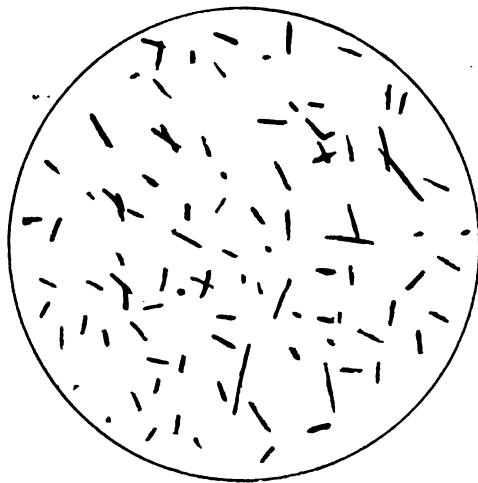
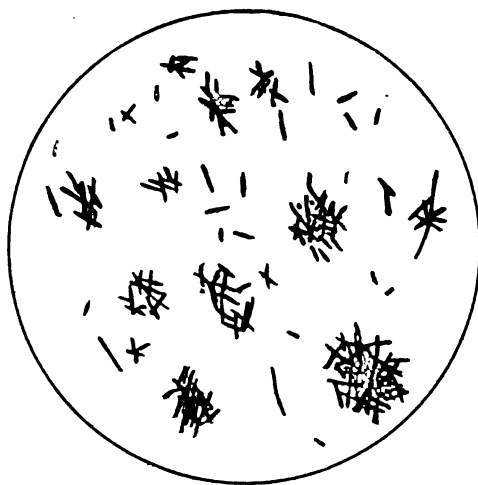


FIG. 2.



NOTE:—This illustration must be regarded as somewhat diagrammatic, as the truthfulness of the original drawing has largely been lost in reproduction. A. P. O.



## Original Articles.

### PHYSICAL EDUCATION IN THE SCHOOLS.

BY LEIGH K. BAKER, M. D., CLEVELAND.

It is not the purpose of this brief outline of the status and aims of physical training in the public schools to refer to the history or literature of the subject. But the statement of a few of the facts relative to its recent revival in the United States may serve to add interest to the discussion of the topic.

In 1885, the A. A. A. P. E. (American Association for the Advancement of Physical Education) was organized. Before this there was no organization or means of intercommunication for the representatives of various systems of physical culture. At the time of its organization one's name had but little company on the roll of the association. At present it contains well toward five hundred members. Ten years ago, so far as I can recall, but seven physicians were intimately connected with the teaching or directing of muscular exercises. Of these, Drs. Sargent of Harvard, Seaver of Yale, Hitchcock of Amherst and Hartwell of Johns Hopkins are notable examples. In Ohio, Dr. Reeve of Dayton took great interest in the physical training work of the Young Men's Christian Association. Dr. Wm. J. Anderson, (Med. Dept. W. R. Univ.), was at the head of the department of physical training at Adelphi Academy, and Dr. Kellogg was making experiments at the sanitarium at Battle Creek, Mich.

Now, over eighty physicians are active members of the

A. A. A. P. E. Thus, over one-sixth of the teachers of physical training are medical men. While these men are loyal and conservative members of the profession, a glance at the positions held by them will convince anyone that they are the directors of most of the influential departments of physical training, the teachers of teachers, the architects of the policies of these departments.

Ten years ago the work in physical training was largely empirical. Since that date a large mass of statistics has been gathered which furnishes data for more rational procedures. Laboratory methods have been called into use in the investigation of many of the problems of this branch of education. Harvard, for example, maintains a laboratory in which nothing but problems relating to physical education are studied. A broader curriculum is in use in the various training schools for physical directors. Thus it comes about that many of the adherents of physical training are able to give a reason for the faith that is in them.

The honorary roll of the A. A. A. P. E. includes the names of a number of leading lights in the medical, scientific and educational world who have been willing to prepare and furnish expert matter for the annual meetings of the association. Such eminent educators as the Hon. W. T. Harris, United States Commissioner of Education, are content to be counted in the active force of the A. A. A. P. E. In fact, one-sixth—some two hundred pages—of a recent report of the commissioner is devoted to the one subject of physical training, giving, in outline, its history, literature and present status.

The literature of physical education, from almost nothing, has rapidly enlarged until one can now obtain valuable discussions of many of its phases and problems.

Iron-clad *systems* have been giving away to rational suggestion and incorporating ideas derived from American experience. Less friction and more unity of action have resulted from the free discussion of topics of interest at the meetings of the A. A. A. P. E.

The growth of this association has demanded its division into district, state and local organizations. Thus, we find in Ohio a state association and in Cleveland a local society.

In '92, the state legislature of Ohio passed an act making physical training a "branch to be regularly taught

in the common schools in cities of the first and second class and in all educational institutions supported wholly or in part by money received from the state." With more or less reluctance, the demands of this law have been met by the city boards of education. In meeting its requirements as well as its spirit, Cleveland is at present behind some other cities of the same rank, notably Cincinnati. In '86, a very small number of cities prescribed physical exercises for their schools. At present it is required in 164 cities and practiced in 272 cities.

Thus, we find that in the medical and teaching professions, among scientific men and educators, in the broadening of its ideas, the extension of its literature, the expansion of its organization and its legal and general recognition, physical training or education in the public schools is far in advance of the position it occupied during the last decade.

*Definition and Aims.*—The term 'physical culture' is giving way to the more specific term 'physical training' or 'education.' By the best of authority and usage, the latter terms are interchangeable. Physical training, as applied to secondary schools, may be defined as 'the *regulated* practice of such forms of muscular exercises as serve to promote the health of the organism and to develop and discipline its motor functions in a general way.' It seeks to conserve the natural coordination in the development of the brain and muscle cell and the nerve fibre which connects them. It claims that any educative process which develops either muscle or brain cell in advance of Nature's behests, simply impedes rather than accelerates the development of that great result of education—power of action. It strives to supplement moral and mental education in the production of this result,—“to perfect the body as an instrument and render it the willing, prompt and efficient servant of a sensitive and enlightened soul and an intelligent mind. It claims that the mental and moral worth of a man is measured by the purpose, number, consecutiveness and skillfulness of his ordinary and extraordinary acts; that these acts, when viewed objectively and concretely, are reducible to muscular contractions.” These claims granted, physical training lies at the foundation of mental and moral training, entering as a prominent factor into most of our educative processes.

The special aims of physical education may be outlined as the educative, hygienic, recreative and remedial. Of these, the first three more immediately concern school gymnastics. The last pertains to sanitary institutions.

*Educative.*—The specialist of nervous diseases notes carefully the peculiarities of his patient's muscular movements in order to determine the seat of his injury or weakness and the nature and extent of his disease. In like manner, the practical teacher will best succeed who understands the significance of the spontaneous and acquired muscular movements of his pupils, for his success in teaching most of his branches, the three R's included, will depend upon his intelligence and skill in selecting and teaching such forms of neuro-muscular action as are adapted to the age, sex and capacity of his pupils." In other words, he must preserve nature's ratio in the development of muscle, nerve and brain cell, the ratio upon which depends the state we call health, the condition in which the largest and best work is done.

To be more specific, certain attributes are developed by physical training. In addition to such muscular attributes as strength, endurance, symmetry, quickness and grace, may be mentioned the more purely mental qualities—muscular control, self-control, physical judgment and physical courage.

Most of life's callings, however small the muscular effort they demand, seem toilsome to weak and flaccid muscles. The average human being is not a strong and vigorous animal. His muscles are not quite strong enough to accomplish the day's work without painful fatigue. Therefore, physical training recommends that the muscles should be contracted with such frequency and vigor as to render them stronger than they need to be for the doing of ordinary duties. It goes farther and recommends artificial forms of exercise in cases where one's work is of a sedentary or partial character, in order to maintain a reserve of muscular strength. This not only makes the work of the day seem lighter, but it provides for those emergencies requiring special outlay of strength.

While we think of endurance as an accompaniment of strength, it is such only in degree. A man who can run a hundred yards in eleven seconds and is strong enough to

chin a bar twenty times consecutively (thus lifting twenty times his weight within a few seconds), may be utterly unable to endure the mile run within the very ordinary time of six minutes.

Endurance comes with the doing of exercises until the muscle cells are inured to service and the circulatory and respiratory systems are maintained in good working order, while more or less severe forms of exercise, during considerable periods of time, are in process of execution.

Symmetry requires that development shall be in proportion,—that no violation of the laws of esthetics may appear. Anthropometry, in the hands of the physicians mentioned, has done much to establish correct ideals of proportion.

Quickness involves rapid interaction between the muscle cells and the brain cells which govern their activities. It is exhibited in such technical exercises as piano playing or it may be a general accomplishment, as in the case of a sleight of hand performer. The education of the special senses in connection with various forms of light muscular movements rapidly executed is efficient in its production.

Grace results from the application of the laws of esthetics to muscular movement. One may properly be said to possess it when he can govern his muscular movements to such a degree that there is no muscular antagonism; when he can accomplish a movement or series of movements with one or more groups of muscles, at the same time leaving the opposing muscles in a quiescent state and the mind free to direct other activities.

Muscular control comes with the practice of a variety of movements executed with varying degrees of strength, quickness and gracefulness, under a variety of circumstances. Consciousness that we can control the actions of our muscles and in any emergency receive from them the desired response, begets in us a love for control. As the quality develops, it is exhibited in all of our activities. It means obedience to properly constituted authority.

Physical judgment informs us of the mathematical relationships between bodies. From it we learn just where, in any emergency, to place our bodies, or their parts, to advantage. To illustrate: While hunting, a bird flies by. Physical judgment tells us whether or not it is within shot and the angle at which one must aim.



Physical courage is a state of mind arising from the confidence that the body, having acquired the qualities already mentioned through the doing of many difficult things, will perform implicitly the dictates of the mind, thus supporting it in any line of action it may undertake. This fact is well illustrated in the physical training of the soldiers of European armies. Physical courage is highly developed through the use of the exacting forms of gymnastics and athletics used in preparatory training.

A well balanced scheme of physical training seeks to develop all of the qualities mentioned. With the development of these qualities comes the coördinate development of the brain and muscle cell and the condition we call good health. In school gymnastics special stress is placed upon health. In general this is brought about by preserving the equilibrium between the brain and muscle cells. Physical education endeavors to strengthen the functionation of the vital centers. To illustrate—breathing exercises are taught and repeatedly given in order to produce a normal lung capacity and a normal quality of lung tissue as well as a thorough aeration of the blood. Bending and shoulder-blade exercises calculated to produce good carriage, are insisted upon. These have for their object the strengthening of the skeletal muscles which support the spine, so that when the spine is in normal position a proportional traction is exerted from every direction. It becomes a second nature to the child to stand erect in an easy, commanding position when the muscles used become so strong that they are no longer noticeably fatigued by the muscular effort necessary to maintain the position. After the children remain in their seats for considerable periods of time, often in cramped positions with the body bent forward, exercises are practiced which restore the spine to its normal curves, rest and give vigor and tone to the muscles which support the spine and hold the shoulders down and back. These are merely illustrations of some of the effects sought. The value of physical training in producing them is conditioned upon the knowledge and skill of the supervisor in adapting the forms of exercise used and the methods of teaching to the age, condition and environments of the children, the amount of instruction furnished the grade or class teacher, her enthusiasm and fidelity in following instructions,

the daily allowance of time for exercise etc. In Cleveland ten minutes per day is the maximum time allowed; in Boston, sixteen minutes. Some cities allow twenty minutes. Ten minutes seems and is a short period in which to produce many tangible results. Well used, however, it is astonishing how much can be done.

A good teacher of physical training will cultivate, in addition to the physical and mental attributes mentioned, certain moral qualities such as instant obedience, fortitude and self-control.

The recreative side of physical education should not be lost sight of. Usually it manifests itself in the unclassified and spontaneous games of childhood and in the more intricate and exacting sports and games of youth and manhood. In the more formal gymnastics of the school-room it should have a large place. After considerable periods of mental work the sudden change to gymnastics should serve as a rest as well as a diversion. Games and athletic sports are a source of enjoyment to us only when we find ourselves mastering one or more of the qualities mentioned: for example, physical judgment. It is the successful use of these qualities which affords us pleasure. All of these qualities can be developed and used in such a manner as to produce pleasure in the formal gymnastics of the school-room or the gymnasium. Enthusiastic teachers, who have the knack of introducing variety into their work, make this branch of education one of the most interesting afforded by the schools. Often times they are so executed that they present all of the features of intricate games and call forth from the pupils a response as hearty and pleasurable as do the games of the school-yard. Educational gymnastics are sometimes accompanied with music. This can be so done that, while it does not interfere materially with the good effects, physically, of the exercises, it adds largely to the recreative element.

While the educative, hygienic and recreative results are distinguished one from the other by separate mention, it would be difficult to produce results along one line in the school-room without at the same time meeting the requirements of the other aims of physical training. Most games as well as more formal gymnastics demand energetic action of the brain cells and are interesting and invigorating only when this activity is present.

In public school work it is necessary to have a clearly defined idea of the results which can be obtained under the existing conditions and then to evolve processes which will yield the most satisfactory results.

A fully developed department of physical training should not only take cognizance of physical exercises, but should supervise all matters in the schools pertaining to physiology and hygiene. It should see that instruction along these lines is so given as to render it efficient. Such practical matters as the selecting of hygienic seats and desks and their adjustment, so as to make them fit the pupils who are to use them, lies within its province. It should investigate all such questions as that of ventilation. It should make a note of any condition affecting unfavorably the physical welfare of teachers or pupils and, at the proper time, report all such matters, together with the necessary suggestions for their correction, to the school authorities. Considered in this light, it will readily be granted that the work of the physical educator is a most important one—a work, which, since it involves so largely the health of the children, should be under the supervision of medical men: a work which should and does receive their hearty sympathy.

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### VIVISECTION A NECESSITY.\*

BY E. B. SMITH, M. D., DETROIT.

Pope's familiar line, "Fools rush in where angels fear to tread," is surely never more fully exemplified than in the case of those doubtless well intentioned people, who, without any special education to fit them for the task, rush into a scientific argument like knights at a tournament, and at the first onset shiver their lances upon the impenetrable armor of technicality with which their superior adversaries are accoutered. Science carefully leads her investigators onward step by step, and only after the most laborious efforts does she reward them with glimpses of the object sought after, thus effectually shutting out from the pursuit those whose impatience or want of concentration renders them

\*Read by title before the Mississippi Valley Medical Association, St. Paul, Sept. 1896.

unfit for the serious undertaking of independent research. If this be the case with the votaries of science, what shall be said of those uneducated busy-bodies who with a narrow bigotry denounce the scientific methods which make vivisection a necessity. They misunderstand both the letter and the spirit thereof. The same could be said of an astronomer who undertook to criticise the work of a civil engineer, or vice versa.

At this juncture, it would perhaps be in order to refer to our title, and ask for the "facts" which have been brought to light by this procedure, thus demonstrating the absolute necessity for experiments on living animals, and in order that they may be laid intelligibly before the reader, we will place them in the following order under their appropriate heads, only stopping to add that a large proportion of the pathological and physiological knowledge of to-day is the outcome of a series of such experiments. Thus:

**THE CIRCULATION OF THE BLOOD**, discovered by Harvey and since demonstrated by more modern investigators by experiments on the frog.

**INFLAMMATION**;—the changes which an injured tissue undergoes, in the process of repair, have been best demonstrated by experiments on the lower animals.

**EMBRYOLOGY**;—nearly all our work owes its success to experiments on the lower animals in tracing out the development of the ovum.

**THE NERVOUS SYSTEM**;—knowledge is being increased every day by experiments on the frog, and on the brain and spinal cord of living animals by Ferrier and Horsley, the latter at University College, London, and important additions made on this wide subject. The experiments on the brain, by Ferrier, which preclude the use of anesthetics and are therefore seemingly to the laity so cruel, have in reality demonstrated truths so important that to-day operations which necessitate opening the cranium, which were formally deemed impossible, are successfully undertaken for the relief of suffering humanity.

**ABDOMINAL VISCERA**—the possibility of the resection of the intestine in cases of gunshot or stab wounds and the application of the Murphy button, arrived at by the man whose name it bears, by experiments on dogs. It has since been further elaborated by more recent investigators, and

the present operation is one which gives life and hope to cases which would previously have been abandoned.

THE PROCESS OF DIGESTION, first observed by Beaumont upon living animals, necessarily kept in a state of mutilation for weeks and days together. It would have been impossible to watch this process in the human being under ordinary circumstances, chance alone having enabled Beaumont to select the case of a man whose stomach had been open by a gunshot wound.

THE EFFECTS OF POISONS INTRODUCED INTO THE CIRCULATION.—This most important branch of experimental research has produced results which a few years ago would have delivered over the investigators into the hands of the law, to be dealt with as those possessed of witchcraft, so astounding are the revelations which have been brought to light. Such are experiments showing the effect of inoculation of the living animal with the tetanus virus and the bacilli tuberculosis with Asiatic cholera, yellow fever, typhoid fever and other diseases (Koch, Fayer and others), and last but not least, saline transfusion,—which have, under the name of bacteriology, revolutionized former theories and made it possible to clear up a doubtful diagnosis.

It will thus be seen that experimentalism is at the very root of our present knowledge, beginning with the days of Aristotle, who first tried the effects of drugs upon the tortoise, down to our time, when Koch, Pasteur, Burdon-Sanderson, Horsley and Ferrier have demonstrated these astounding truths which sanctify and render it necessary. Shall we then, in our anxiety for the lower animals, forget what is due to the highest known type of organization, man? Shall we forego the use of meat for this carnivorous biped, because the butcher must slay the ox? It is all very well to attend meetings of the S. P. C. A., but would those who do so, and howl the loudest at the very name of a vivisectionist, like to think that their conscientious scruples concerning the fate of the animals awaiting execution in the stock yards forbade their partaking of the juicy and nutritious steak or chop when the time came for supper? This is a horse of another color. They would be deprived of what their appetite calls for and in their selfishness, therefore, would pay no heed to the death throes of countless sheep, oxen, or hogs, the latter, be it observed, being fre-

quently thrown into the scalding vat "while yet alive." It is a humiliating thought, but nevertheless a truth, which it would be well for the champions of animals and Bands of Mercy to take note of. At the same time, however, while it is the object of this paper to support the rightful claims of science to a free and unhampered course in her pursuit of knowledge, we would desire that all experiments upon lower animals should be conducted with the seriousness and dignity which rightly belongs to such investigations, and in order that needless cruelty by inexperienced experimenters may be stopped, would suggest that all places where vivisection obtained (as in the departments of experimental physiology and pathology in the authorized medical schools and private laboratories of the country), should be duly licensed by law, only one, or at the most two professors on the staff of the college holding the State license for that purpose, and an inspector appointed to see that the provisions of the acts are strictly complied with. These men should be only such as have done practical work in this line, and who are responsible and well qualified. This act should also deal with the subject in its entirety and rigidly demand the administration of an anesthetic, except when the nature of the experiment will not permit its use, and furthermore provide for the immediate destruction of the animal at the conclusion of the experiment. In this way those who carp at vivisection, as well as those who are obliged to use it as a means to a scientific end, will be pleased on the one hand and protected from insult on the other. Lastly, we desire with all sincerity to impress upon the minds of those opposed to vivisection that, while the scientific world receives with great respect those conscientious scruples which impel their denunciation of the present experimental methods, it cannot forget its duty to humanity and can, therefore, only in self-defense adopt as its motto, "*Necessitas non habet legem.*"

## REPORT OF A CASE OF PLACENTA PREVIA, COMPLICATED WITH PUERPERAL CONVULSIONS.\*

BY DR. A. RHU, MARION, OHIO.

May 31, 1896, I was called to the bedside of Mrs. A. B., aged 20, native U. S., blonde, nourishment excellent, abundance of panniculus adiposus, in the full enjoyment of robust health. About 10 a. m., she was seized with severe pains and sudden hemorrhage, which was quite active. On examination I found the case one of placenta previa lateralis, with a head presentation. I at once tamponed the vagina with antiseptic gauze awaiting further developments. I was inclined to postpone any active interference, tamponing and placing the patient in the proper dorsal decubitus. This being accomplished, I held myself in readiness for any emergency which might arise under such circumstances. I had found the os uteri dilated to about the size of a silver half dollar and could feel the placenta, from which hemorrhage came, on the left side. Pains came regularly, and I now had every reason to believe that labor had begun. The membranes, as yet, were unruptured. Two hours afterward the hemorrhage was seemingly reduced to the minimum, on account of which I decided to await further developments. Gave a hypodermic injection of  $\frac{1}{4}$  gr. morphin and atropin to induce rest and quietude, when, after four hours, the pains came on regularly. The tampon was removed and a frightful hemorrhage came on. It was a facile matter forcibly to dilate the os uteri, and while awaiting another doctor to assist by giving chloroform. However, before the doctor came, my patient became suddenly unconscious, cold and collapsed, when eclamptic seizure of most violent character set in. The patient became pulseless, but rallied in a few moments. Chloroform was now administered and when the doctor arrived he continued the anesthetic, while I delivered her of a healthy male child. After removal of the placenta, the hemorrhage ceased, the uterus contracted firmly, but the eclamptic seizures continued until 11 p. m. After the first attack of eclampsia, I gave her pilocarpin hypodermically and continued the same in combination with the bromides, ergot, chloral and gelsemium mixture as

\*Read before the Marion County Medical Society, June, 1896.

needed. As soon as the placenta was removed, I catheterized the bladder and found about one-half pint urine which was highly albuminous, sp. gr. 1020, acid reaction. No headache or any discomfort was mentioned by her previous to confinement. She apparently was enjoying the full measure of health, during her period of gestation, up to this time. The family history reveals the fact that her mother during her first confinement had eclampsia and was delivered of a dead fetus, but made a rapid recovery herself. This child also had frequent eclamptic seizures during the first four hours.

While I have met with three cases of placenta previa in my practice without a death, I thus far never had a case of eclampsia, nor have I been able to find record of a case complicated with placenta previa as mine was. Puerperal eclampsia is one of the most dangerous complications of labor, the exact etiology of the condition having not yet been settled. Sir J. Williams in the *Practitioner*, January 1895, and Chamberlent, in the *Arch. Clin. de Bordeaux*, June, 1894, both call attention to the hepatic lesions that are noted in fatal cases and both lay stress upon the fact that the amount of albumin in the urine does not bear any relationship to the gravity of the case, although albumin is generally present, according to the same authority. Bouchard is the author of the theory that eclampsia is due to the retention of toxic products that the kidneys and other excretory organs cannot eliminate, and that the toxicity of the urine is diminished in cases of eclampsia and is inclined to regard the blood in a toxic condition; 0.75 c. c. of blood from an eclamptic will kill a kilogram rabbit, whereas it requires 10 c. c. to accomplish the same, when normal blood serum is injected. Hence, he remarks that where we can ascertain the toxicity of the blood, we may be able to arrive at a prognosis in cases of puerperal eclampsia. Doria in *Il Policlinic*, March 1, 1895, holds that in the gravid uterus, between the walls of the membranes, a morbid process is set up which is accompanied by the production of saprophytic bacteria which eventuates in a form of toxemia, characterized by hemorrhages. Hence, we find *post mortem* the characteristic hemorrhagic foci in the liver and spleen and other viscera, either caused directly by the bacteria or their products, the toxins.



Feis, in the *Archiv of Gynak.*, Sept. 1, who has studied the influence of accumulation of urea in the blood of the mother upon the uterus and fetus, claims:

That urea has no power to cause uterine contractions.

That urea is harmless in the body, provided its free excretion is not prevented.

Keudornath-Das has collected 101 cases of eclampsia, with a death rate of 58.4 per cent. Of 105 children born, 55 were dead, 45 living; a fetal mortality of 52 per cent.

As mentioned before, four to five hours after delivery, the child began to show eclampsia, and within an interval of an hour had quite a few convulsions, which, however, ceased, and the child subsequently did well, although the mother remained for some time unconscious and in a deep stupor, from which she could not be aroused, and when awake, could not recognize any one.

Concerning the treatment, three methods have claimed the attention of physicians in general, namely: Venesection, hypodermoklysis, and the *veratrum viride* treatment.

Ferre, 1894, reports two recoveries, which he treated by hypodermic injections of an 8 per cent. NaCl. solution, in distilled water, injecting from 200 to 700 grains at a time.

Believing with Porak, that the saline-solution in great quantity increases blood tension and in this way leads to the re-establishment of the renal secretion, also that the solution acts as a nervous sedative, by diluting the toxic matters in the blood, thus diminishing their power, Hirst is inclined to believe that the causation of puerperal eclampsia is an arterial contraction, resulting from the presence of effete material in the blood.

Calderini, 1894, recommends as the best treatment, as soon as labor is in progress, the administration of chloroform, hypodermoklysis of sol. sodium chloride, 0.75 to 100.00 in filtered, sterilized water, repeated injections of morphin, chloral by rectal injection, hot air bath under bed clothes. We find, however, that our American Nestors are inclined to condemn the morphin and chloroform treatment and rely chiefly upon the *veratrum* treatment, which is given in doses from 20-60 drops, and is worthy of our consideration. Pilocarpus, I find, is somewhat unpopular now, yet I regard it with much favor, if used in selected cases.

On June 25, '96, the patient and her child were well,

although the mother's vision had not cleared up to the normal. The albuminuria persisted up to the 20th of June, but at this writing has disappeared, although a slight vision defect still exists, which no doubt will clear up under the present treatment, consisting since her confinement, of calomel, liquid diet, buttermilk ad libitum, and the liquor ferri et ammonii acetatis, *ter in die*. The puerperal convulsions were undoubtedly due to the existing albuminuria in this case, although a general visceral inactivity existed as well. On account of this patient feeling so well and enjoying apparently the best of health, she neglected to consult her physician until the time the hemorrhages began so suddenly, on May 31, '96. It is somewhat remarkable that at no time was she anemic or did she complain of headaches, edema, dyspnea, or gastro-intestinal symptoms.

Without chloroform, rapid digital dilatation and forceps delivery and the hypodermic medication, this patient would have certainly died. I have no doubt that the veratrum and nitro-glycerine treatment is recognized as the treatment *par excellence*; yet am of the opinion that morphin, pilocarpin and hypodermoclysis have their place as well, and that prompt surgical procedures, under anesthesia, are of more value than all other modes of treatment.

Oct. 23, '96.—The patient has fully recovered at this writing. Mother and babe are in the full enjoyment of normal health.

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## WHO SHALL APPLY THE X-RAY IN MEDICINE AND SURGERY?

BY F. E. BUNTS, M. D.

Professor of the Principles of Surgery and Clinical Surgery, Medical College of Western Reserve University.

The introduction and practical application of X-ray photography to the practice of medicine and surgery has become, in a remarkably short time, an accomplished fact. Its vague possibilities, as conceived upon its first introduction, have become crystalized into definite results, and it is not too much to say that it has already become an essential and indispensable adjuvant to our professional resources.

This being so, the question arises, how are we to obtain

with greatest economy to our patients and advantage to ourselves, the use of what is at present an expensive, delicate, and complicated apparatus out of reach of the personal ownership of the larger part of medical men?

Drugs, surgical appliances, instruments and other similar aids to medicine and surgery are supplied, for the most part, by others than practitioners of medicine, but they are, or should be supplied, not applied. Is this new adjunct to come under the same category, or is it to be both supplied and applied by those who are presumably unacquainted with normal anatomy and certainly totally unacquainted with pathology?

It seems to me to be a question of the most vital importance and one demanding immediate attention. It is we who must say how and by whom it shall be done. Granted that for the present its cost and the technical knowledge required in its operation put it out of the question for all to own and operate it, to whom shall we look for help?

In the smaller communities the practical introduction of the fluoroscope will be, for obvious reasons, delayed for some time, but in the larger cities it has already come and it is found in the possession of the physicians and also of the laity.

The desire to keep its medical and surgical application within the hands of our profession must not be regarded either as an evidence of selfishness or of fear. None of us who have intelligently carried out the teachings and accumulated experiences of our profession need fear the revelations of the fluoroscope, however startling they may be. It is only their interpretation and the lessons to be drawn from them that are of practical significance, and I maintain that these interpretations may be best made by one versed not only in anatomy, but in pathology, and therefore by a medical man.

What we do have to fear and what may prove a genuine menace is the unripe and ignorant interpretation of results by men who have no knowledge of the indications to be met or the obstacles to be overcome in the treatment of certain cases. This is particularly true of fractures. It has long been known by the intelligent portion of our profession, that because a bone had been set and the limb apparently placed in good position is no indication that the

fragments have been replaced in their normal position. Indeed, this is the exception. If the revelations of the X-ray teach us new lessons and new ways of carrying out *indications* for treatment which have always been recognized, then we must be the first to learn and apply them, but we must guard our profession against the aspersions and dangers which must come if these interpretations are to be made or attempted by those devoid of medical education or experience.

It would not be difficult for me to relate cases in which most damaging statements have been made by non-medical men, based upon such misinterpretations. I do not mean for a moment to infer that they were maliciously made or with a desire to harm the physician, whose name may not have been known, but were the natural conclusions of a non-professional man without experience or knowledge of anything connected with the case except the machine which he operated.

Because deformities are shown by this means we are not at once to jump to the conclusion that they could have been avoided, and in looking into the future we must not expect too much in this line of work. The recognition of a lesion and its perfect relief are two entirely different questions.

The physician should be taught eagerly to welcome this innovation in our practice; he should hopefully look forward to the possible benefits to humanity to be derived from its use. It should not be used as an instrument to instill fear into his heart, or as a scourge to force him over paths still thornier than the one he already treads.

Thus far the fluoroscope has, I believe, been regarded by most medical men more as a menacing enemy than as a prospective friend, and I am satisfied that this has been so because it has been used so extensively by those outside of our profession.

Let us insist then, that as far as its medical and surgical application is concerned, it shall be in the hands of honorable and intelligent medical men. Let its revelations be regarded just as are those of other consultations. Then, and only then, can it come into general acceptance, and only by its general and welcome acceptance can those benefits be derived from it, to which we confidently look forward for the future.

# SUB-MUCOUS LINEAR CAUTERIZATION. A NEW METHOD FOR REDUCTION OF HYPERTROPHIES OF THE CONCHAE.

BY NORVAL H. PIERCE, M. D.,

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Throat and Ear, Laryngologist to the Passavant  
Memorial (Emergency) Hospital, Chicago.

In reviewing the work done by the writer during the past ten years, the thing which most prominently strikes the attention is the marked diminution of the number of instances in which the electric cautery has been employed in the treatment of nasal disease. Year by year this curtailment has been increasingly marked, until, during the last eighteen months, there are only four cases recorded in which the electric cautery has been used in the nasal chambers. The reason for this is threefold: First, a growing appreciation of the vast difference between turgescence of the turbinated bodies and true hypertrophy; second, that in the former condition the large majority of cases are by far the more satisfactorily treated by measures other than cauterization; third, the substitution of the method of cauterization devised by the writer for electric cauterization.

Our experience with electrical apparatus may have been unusually unfortunate, but it has led many times to the most profound disgust. We have winced at the primary cost of such a plant, but we have moaned aloud in our despair at the cost and worry of its maintenance. Had Aristotle lived to-day he would have added electrical batteries to "the wind, the plighted faith of woman and the sunshine of an April day," as objects of a wise man's distrust. In the time of our greatest need, we have been disappointed in our costly electrical appliances, so that we have been led to regard our row of squat Pompellis, in the words of Scotia's dearest bard, as:

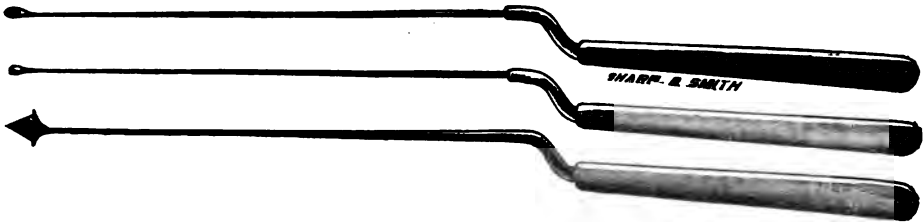
.....unco weak,  
And little to be trusted.

Therefore, we essayed to devise some other method, less costly, more dependable and equally, or more, efficacious.

Chromic and glacial acetic acid applied to the surface

of the conchae have been found unsatisfactory in dealing with both soft and true hard hypertrophies. In dealing with soft hypertrophies, we are obliged to employ only a limited quantity of the escharotic each time in order to avoid violent reaction, so that the applications have to be repeated a number of times with intervals of variable duration between, which makes the method tedious and one cannot be certain what the results will be in the end. As a means of treatment of true hard hypertrophies, I do not hesitate to characterize this method as worthless. There are places, however, where I believe this method is applicable, e.g. in the sensitive areas at the posterior portion of the septum. The natural relations of the parts here (a thin membrane on a bony base) render only a most superficial cauterization necessary.

The instruments required in this new method are a small knife, an instrument which I call a blunt sub-mucous dissector and a cupheaded applicator, for carrying fused chromic acid. The knife resembles a myringotome. The other two instruments are made from No. 18 silver wire, which is tempered to give sufficient resistance. Each instrument is mounted on a metal bayonet handle with an angle in the shank as suggested by Williams, of St. Paul, for ear instruments. By this device we are able to keep the hand out of view of the field of operation.



The technique of operating is as follows:

1. The parts are thoroughly cocaineized. For this purpose let me say that I find a 4 per cent. solution of cocain which contains 1 per cent. antipyrine, applied by means of a pledget of cotton on an applicator, most satisfactory. Before using, this is heated. To do this we hold the pledget of cotton containing the solution over a flame until it feels quite hot when applied to the back of the hand. Anesthesia when produced in this way occurs much more quickly, is more profound and lasts longer.

2. After anesthesia is complete, an incision is made in

the anterior head of the turbinated body, about a quarter of an inch from the muco-cutaneous junction, carrying the knife slightly parallel to its surface until the guard is reached. I have made this first incision by means of the ignipuncture, but find it less satisfactory than the cold incision. After the slight hemorrhage has ceased, we proceed to the next step.

3. The blunt dissector is introduced into the incision and gradually insinuated, with as little up and down or lateral motion as possible, beneath the mucous membrane, i. e. in the sub-mucous connective tissue. This may be continued to as great a distance as necessary. We may continue it along the entire length of the body, until we feel the resistance of the head of the dissector against the mucous membrane as it dips down to form the posterior head. Care should be taken not to break through the mucous membrane at any part of our course. There may a few drops of blood escape from the anterior incision during or immediately after this stage of the operation, but hemorrhage is always insignificant. After this ceases, the last stage of the operation is begun.

4. We insinuate into the anterior incision, quickly and dexterously, the head of the cup-probe, in the cup of which we have fused a very small quantity of chromic acid. This is caused slowly to follow the tunnel which has been made by the dissector, which it readily does. It is then withdrawn, the nose is syringed or sprayed out through the opposite nostril with an alkaline solution, and the operation is complete.

The simplicity of this method does not detract from its great worth. The cost of the implements as compared with the cost of the electrical cautery is insignificant.

The apprehension on the part of the patient is much less than in electrical cauterization. We have yet to have a patient refuse to undergo this operation, while with the actual cautery this has by no means been an uncommon occurrence.

Our operation is painless. This can hardly be said of electrical cauterization when any considerable area is destroyed. This is especially true as regards the posterior nasal regions.

The reaction in the majority of cases is insignificant, or absent altogether. In only one instance have I had

reaction which might be compared to that which we get from the electrical cautery. In this case there was an enormous hard hypertrophy, and I, fearful of an insufficient result, made two applications of the chromic acid at one sitting. In the majority of cases the patients say that they are free from the inconveniences due to the operation (swelling, hypersecretion etc.) on the day following.

This operation is more rational than the electrical cauterization. We must remember that in the use of the cautery, we burn from without inward; that in thus penetrating the conchae, there is a greater destruction of the surface than of the parts beneath, and this is just exactly reversing the desired object, for it is not by destroying a functioning membrane which is of the greatest importance to the entire economy, that we gain the good effects of cauterization. The process by which an hypertrophied conchae is reduced, takes place in the sub-mucous connective tissue. By cauterization we here set up the formation of scar-tissue, which, following a law that presides over it in all places, contracts, and thus the whole volume of the turbinated body is decreased. By our method we leave the surface of the mucous membrane intact. By a proper application of it, no ulceration whatever occurs. The cauterization is carried immediately to the elements which are concerned in bringing about the result desired. Further, the nourishment of the parts is reduced by closing up the vascular supply. These results we regard as of such importance, as to confer upon our method the dignity of a distinct advance in our specialty.

Another point in favor of our method is that it obviates the danger of atresia. We have operated on cases where the nares were so extremely narrow that even after cocaineization the conchae remained almost in contact with the septum; but no ulceration occurring, no atresia could take place. The greatest care should be exercised not to use too much of the acid. One crystal fused in the cup will be sufficient in the majority of cases.

It may be readily appreciated that the application of this method to the middle turbinated bodies is very limited. I have, however, successfully applied it in cases of lymphoid hypertrophy of the septum and floor of the nose, and look for its wider application in the future.



I have lately examined patients who were operated on by this method a year ago, and they were as free from objective and subjective symptoms as they were a month after being operated upon.

To recapitulate: We desire to claim as advantages for this method of operating—

1. The cheapness of its armamentarium.
2. Its reliability. The instruments employed are always in order and are easily transportable.
3. Its simplicity and ease of performance.
4. It is greatly less terrifying to the patient than is electrical cauterization.
5. It is painless.
6. Its efficacy. The scar-tissue produced by this method is as great if not greater than that produced by electrical cauterization. The hypertrophies not having begun to recur after a year's time, in the cases examined, its effects may be regarded as permanent.
7. It does not destroy the mucous coverings.
8. The reaction is very slight, much less than that following the use of the electric cautery, when properly done.

In presenting this method to our colleagues, the writer is assured that its efficacy and practicability are fully established, it having been employed for over a year in his public clinics and private practice, and he regards it as distinctly superior to the measures heretofore employed for the purpose of reducing hypertrophic bodies.

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THE NEWLY-DISCOVERED AGGLUTINATION  
REACTION FOR THE DIAGNOSIS OF  
TYPHOID FEVER WITH REPORT  
OF SOME PRELIMINARY  
OBSERVATIONS.\*

BY A. P. OHLMACHER, M. D.

(From the Bacteriologic Laboratory of the Cleveland College of Physicians and Surgeons.)

During the past few months, a new and apparently very valuable method for the diagnosis of typhoid fever has

\*Presented before the Cleveland Medical Society, Nov. 27, 1896, and accompanied with a demonstration by means of microscopic preparations.

been perfected. The name which best describes the new test is that used by Widal, who first applied it clinically; viz., the "agglutination reaction." In order that the rationale of the method may be better appreciated, a brief summary of the experimental work leading to its discovery is desirable. While this preliminary work has only an indirect interest to physicians not specially engaged in bacteriologic study, it still is of much importance since from it a new and specific therapy for cholera and typhoid fever will doubtless soon be evolved.

#### HISTORY OF THE TEST.

In the course of his exceedingly important studies upon immunity in Asiatic cholera, carried on for the last four years, R. Pfeiffer discovered that living cholera organisms were rapidly destroyed when injected into the peritoneal cavity of guinea-pigs previously rendered immune by treatment with gradually increasing doses of the living cholera spirilla, or with the toxic products contained in the bodies of dead cholera germs. The same effect was noted in guinea-pigs rendered immune by a protective dose of blood-serum from another animal which had been immunized by gradually increasing quantities of the cholera poison. All of these experiments were made on the peritoneal cavity, and tests were made by aspirating into capillary glass tubes a small quantity of the peritoneal fluid at varying periods after an injection of the living bacteria. It was found that the previously active cholera spirilla rapidly lost their power of motility in the peritoneal cavity of immunized guinea-pigs, and that the organisms soon gathered into masses which gradually showed evidences of disorganization until the shape of the individual comma-shaped microbes was lost. Ultimately all traces of the inoculated germs disappeared from the peritoneal fluid when examined microscopically. Cultures prepared from the peritoneal fluid showed that the inoculated bacteria rapidly diminished in numbers and finally failed to appear in the tests. The destruction of the bacteria occurred in from a few hours to two or three days, depending on the degree of immunity, the number of injected organisms, and other similar factors. Aside from this experimentally induced immunity, Pfeiffer noted that the blood-serum of human beings recently convalescent

from cholera possessed properties similar to that of the experimental animals.

From the results of a large number of experiments in the line of those just touched upon, Pfeiffer concluded that the blood-serum of animals experimentally immunized against cholera, or of human beings recently convalescent from cholera, contains a *specific bactericidal substance*. This substance is exquisitely bactericidal against the cholera spirillum of Koch, and without effect upon a number of species of spirilla, which have heretofore been confounded with those of cholera.

Working in the direction indicated by his cholera investigations, Pfeiffer was able to demonstrate in experimental typhoid fever infection and infection by the *bacillus coli communis* practically the same kind of specific bactericidal substance in the serum of animals immunized against these species of bacteria that he had obtained with cholera. He also found that the blood-serum of typhoid convalescents showed the presence of a substance which had the power of destroying many fold the fatal dose of living typhoid bacilli when injected along with the bacilli into the peritoneal sac of guinea-pigs.

Loeffler and Abel made an independent research upon the specific experimental immunity of the typhoid and colon bacillus, about the time of Pfeiffer's work, and their conclusions corroborate those made by Pfeiffer. Incidentally they found that the blood-serum of animals immunized against the typhoid fever bacillus was slightly more bactericidal against the colon bacillus than normal blood-serum (which, in large doses, appears to exert a protective influence against experimental cholera, typhoid and colon bacillus-peritonitis in guinea-pigs), and that the serum of coli-immune animals was equally effective against typhoid infection. The possible practical bearings of this particular point will be again referred to.

The next step in the development of the particular reaction with which we are now concerned was made by Gruber and Durham, who simplified the tests proposed by Pfeiffer for differentiating the cholera spirillum, by doing away with the animal inoculation. They found that if the blood-serum of a cholera-immune animal was mixed with living cholera organisms and examined under a microscope,

the previously active spirilla would cease motion and soon form the same clumps that had been found by Pfeiffer in the peritoneal cavity of protected guinea-pigs. They also proposed the use of a test-tube experiment, in which the diffusely clouded fluid would show a rapid sedimentation of the cholera spirilla if some cholera-serum were mixed in the fluid. This modified test was soon after applied in experiments on the typhoid bacillus.

Throughout these experiments the chief interest lay with the bacteriologist, since the specific serum-reaction of Pfeiffer and its modification by Gruber and Durham were used solely for the identification of the cholera spirillum and the typhoid bacillus. To the systematic bacteriologist these serum-reactions of Pfeiffer promise to be of great value in the differentiation of such bacterial species as those of cholera, typhoid and the colon bacillus, from species which closely resemble them in the tests ordinarily made.

The interest of the clinical diagnostician in this subject was not excited until a few months ago, when Widal reversed the methods used by Gruber and Durham and proposed to use the typhoid bacillus as a clinical test for the presence of a specific substance in the blood of human beings suspected of typhoid, instead of using the specific serum as a test for the typhoid bacillus. Widal found that the serum of freshly-drawn blood of a typhoid fever patient, or the dried serum, or even the dried blood, when mixed in a drop of water with a moderate number of previously active typhoid bacilli, would cause the bacilli to lose their power of motion and rapidly "agglutinate" into irregular heaps of considerable size. The same phenomenon was observed when the serum of blisters on typhoid patients was used. Normal human blood and blood from a number of other diseases failed to give the same reaction as typhoid blood. The agglutination-reaction was found in a number of cases of typhoid fever in various stages by Widal, and by Chantemesse, Courmont and Achard soon after him. In its modified form the test is now being applied clinically, and though the time in which it has been used is still too short to enable us to draw definite conclusions, the promise seems to indicate an exceedingly valuable diagnostic measure in the early recognition of typhoid fever.

## TECHNIQUE.

*The Sample of Blood.* The specimen of blood may be obtained through a needle prick in the cleansed and dry (and free from germicidal chemicals) finger-tip upon a clean cover-glass, a clean piece of glass or mica, or upon the surface of a clean card. The drop of blood should be of good size, as failure has resulted from the use of too little blood. The blood should be allowed to dry without being spread, after which the specimen can be transported to the laboratory.

*The Hanging Drop.* In making Widal's test the ordinary "hanging-drop" preparation of the bacteriologist is brought into requisition, which is made by mixing into a small drop of water on a cover-glass a bit of the growth from a pure culture of the typhoid bacillus, simply by touching the surface of the culture lightly with a sterilized platinum needle and then rubbing the needle into the drop. A moderate number of typhoid bacilli should be carried over, and this portion of the work must be learned by practice. Some bacteriologists use a drop of a broth-culture of the typhoid organism instead of taking the bacilli from solid media into a drop of water. As soon as the bacilli have been thoroughly mixed in the drop, a small portion of a solution of the dried blood in water is also added to the drop and stirred about. The solution of the blood is made by adding one or two loopfuls of water to the dried blood, which is then dissolved by stirring, and a loopful of this solution is mixed with the drop containing the bacilli. The preparation is completed by sealing the cover-glass by means of solid vaseline upon a glass slide with a concave center, in such a way as to allow the drop of fluid to project into the space left by the concavity. The preparation is then ready for microscopic examination either with a high power dry objective ( $\frac{1}{4}$  or  $\frac{1}{6}$  inch), or with an oil-immersion lens.

Until one is thoroughly familiar with the test upon a given culture of the typhoid bacillus, it is well to make control hanging-drops either with the water alone, or with a mixture of normal human blood, which can be examined side by side with the typhoid blood. It will be found that different typhoid cultures vary considerably in the motility of the bacilli, the earlier cultures usually being extremely

active, while those grown on artificial media gradually lose their power of motion. Variations in motility also depend upon the kind of culture media, (broth, gelatine, agar-agar ect.), and upon the length of time a culture has grown on a given medium. Loss of motility, in itself, is no serious fault in making the test, for the characteristic reaction occurs as well with non-motile as with motile bacilli, but the picture is not so striking when the control preparation shows the bacilli to be sluggish or quite motionless, as when they are actively moving about in the field of the microscope.

In two cultures which I have employed in this test, I have found that the typhoid bacilli became much thicker and generally longer than usual when they were grown on Elsner's potato-gelatine-potassic iodide medium. The test with typhoid blood on these large, actively motile rods was very striking, and on account of the increase in size of the bacilli the dry objective (No. 7 Leitz) was amply sufficient for making the observation.

*The Reaction.* In a microscopic examination of a properly prepared hanging-drop of the typhoid bacillus, either in plain water, in broth, or mixed with normal human blood (control preparation), the bacilli will be seen evenly distributed throughout the field and in motion. The kind of motion will vary from a pronounced to-and-fro vibration (Brownian movement), to an active darting, or rapid swimming across the field of vision, depending upon the activity of the culture. All stages of activity in motility may be seen in different cultures, from those in which all of the bacilli appear to swim rapidly about, to those with only a few sluggish rods with true motility, the balance showing the Brownian movement. In the drop mixed with typhoid blood an entirely different feature is presented. Almost immediately after its completion, the preparation shows an inhibition in the motility of the bacilli; they rapidly come to rest and begin to gather into masses of two or more members (agglutination), the size of these masses of rods rapidly increases, until at the end of half an hour great irregular clumps of motionless bacilli are everywhere encountered, with only here and there an isolated and usually motionless individual. The whole process can be watched under the microscope and makes a very interesting sight. The time of complete agglutination varies from a few min-

utes to half an hour. My own observation leads me to exclude, or at least hold as very doubtful, tests in which the reaction is not pronounced in one-half hour.

*Permanent Preparations.* After a number of unsuccessful trials, I have succeeded in making permanent stained specimens, showing the agglutination of the bacilli. Two good sized drops of water were suspended in a moist chamber. To each drop a small quantity of typhoid bacilli was added, and typhoid blood mixed with one of the drops. The whole was set in the incubator for 15 minutes, after which a loopful from each drop was quickly spread upon cover-glasses. The films were dried, flamed, and stained with dilute carbolic-fuchsin. In the control preparation, the bacilli were isolated in the usual manner, while in the one made with typhoid blood, the irregular characteristic clumping of Widal's reaction was beautifully preserved. Figs. 1 and 2 of the accompanying plate represent the appearance of these two preparations.

#### CLINICAL TESTS.

The following is a brief summary of the tests which I have personally made of Widal's reaction:

*Typhoid Fever*\*—The reaction proved positive in the twenty-nine cases of undoubted typhoid which were examined. Of these cases, eight were early, that is, they had been under observation one week or less, from the time the patient first sought medical advice. Eleven cases were in the active stage (from two to four weeks of illness). Of typhoid-convalescents, seven examinations were made at periods varying from four to thirteen weeks after the stage of apyrexia. Three relapses (after the fourth week) were also examined.

In several of these cases the clinical diagnosis was questionable, but the subsequent conduct of the case confirmed the positive results of Widal's reaction.

One examination was made of the blood of a doubtful case in which the reaction was moderately pronounced, in which the subsequent conduct of the case failed to respond to the usual course of typhoid infection, though the physician in charge considered it a case of mild typhoid.

In two suspected typhoids the test was negative and

\*I am under obligations to Drs. F. S. Clark, Tuckerman, Hoover, Aldrich, and Parker, and to Dr. S. H. Champlin of the Cook County Hospital of Chicago, for material for these tests.

here the subsequent clinical history confirmed this finding.

The reaction was obtained (though more slowly than usual) with the blood of a healthy individual who had an attack of typhoid fever five years before.

*Appendicitis.*—The blood from four cases of appendicitis, after operation, was examined and Widal's reaction obtained in two of the cases; one very pronounced and early agglutination of the typhoid bacilli was noted, while the other was slower, but well-marked in one-half hour. This blood was also tested on a hanging-drop of the colon bacillus which had been obtained from lake water, but no agglutination was observed. No previous history of typhoid fever could be elicited in either of the cases of appendicitis giving the reaction, so that it appears very probable that the positive result was in some way directly related to this particular disease. This is, however, not so surprising when we recall the fact that appendicitis is usually a colon bacillus infection; that the colon bacillus and the typhoid bacillus show many evidences of relationship; and that Loeffler and Abel have shown a partial relationship between the bactericidal substances produced in animals immunized against these organisms. Moreover, it is quite possible that with proper cultures of the colon bacillus, a specific agglutination reaction may be obtained which will be of service in the diagnosis of appendicitis and other infections produced by *bacillus coli communis*.

*Intoxication with Erysipelas Toxins.*—The blood from a girl who had been having daily injections, for three weeks, of the toxins of *streptococcus erysipelatis* and *b. prodigiosus* for inoperable osteo-sarcoma was tested, but did not give the agglutination reaction. This experiment was looked to with some interest, since this patient had acquired a marked tolerance for the toxins, and, presumably, the blood contained some kind of a defensive substance.

*Tuberculosis.*—The reaction was absent in four cases of pulmonary tuberculosis. A slow and incomplete agglutination was obtained from the blood of an advanced case of phthisis, and as no data concerning a previous remote attack of typhoid were obtained, this result lacks explanation.

Several other tests were made in a variety of pathological conditions, with uniformly negative results, and the same is true of the examinations of the blood of healthy individuals, the only exception here being the case in which an attack of typhoid fever had occurred five years before.



From a summary of the results thus far published, it is apparent that the data are too meager to fix the limitations of this new diagnostic measure, and a large number of trials in competent hands can alone determine its value. The evidence thus far adduced is exceedingly favorable, and it seems to point to Widal's reaction as another conquest for the bacteriologic laboratory in furnishing a method of diagnosis for typhoid fever of the same value as the staining test for the bacillus of tuberculosis in phthisis and the culture test in diphtheria.

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## EXPLANATION OF ILLUSTRATION.

FIG. 1. A permanent preparation made from a control hanging-drop of typhoid bacilli, which had grown on Elsner's medium for five days at the room-temperature, stained with dilute carbolic-fuchsin, representing the even distribution of the bacilli, which is also encountered in an examination of a fresh, living, control hanging-drop. From a camera lucida tracing with Leitz 1-12th in. oil immersion lens, ocular 4.

FIG. 2. Made from a permanent preparation of a hanging-drop similar to that used for Fig. 1, save that some typhoid blood had been mixed into the drop fifteen minutes before the preparation was made, showing the peculiar clumping or agglutination of the typhoid bacilli, which is also characteristic of the reaction in fresh preparations. Drawn under same conditions as Fig. 1.

## Society Reports.

### CLEVELAND MEDICAL SOCIETY.

*Regular Meeting, November 13, 1896.*

The committee appointed at the previous meeting to prepare resolutions upon the deaths of members of the society occurring during the past year, reported upon the death of Dr. P. I. Spenser, of Cleveland, and of Dr. William Caldwell, of Fremont, O. The report, which was only partial, was discussed by DR. M. ROSENWASSER, and the committee was continued. The members of the committee were DR. BAKER, DR. SAWYER and DR. ASHMUN.

Reports of cases were made by DR. W. H. HUMISTON and DR. J. M. INGERSOLL, which were discussed by DR. ROSENWASSER and DR. WM. LINCOLN respectively.

On the regular program of the evening was a paper read by DR. R. J. WENNER, on the subject of "Lumbar Puncture of the Subarachnoid Space," with reports of cases.

The comparative newness of the subject and novelty of its application for diagnostic purposes made the paper of special interest to those present. The paper was in substance as follows:

Lumbar puncture of the subarachnoid space was first performed by Quincke in 1891 to relieve the pressure symptoms of hydrocephalus. The operation was intended to take the place of trephining or puncture through the fontanelle.

As a therapeutic measure the operation seems to have proved a failure, but as a diagnostic agent it has undoubted value.

If sepsis is avoided there is practically no danger connected with the operation. In the cases reported, an ordinary small-sized aspirating needle (sterilized) was used. It is necessary to use care in inserting the needle, as in several cases too free manipulation has broken it.

The needle is inserted, in the adult, between the third and fourth lumbar vertebrae, and in the child between the fourth and fifth. There is no danger of wounding the cord or the nerves. In the child the needle may be inserted between the spinous processes in the median line, as the processes are usually widely separated, but in the adult the puncture is made about a finger's breadth to the side of the spinous process, and the needle directed slightly upward and inward. The depth of the insertion varies from 2 cm. to 8 cm. The amount of fluid withdrawn may vary from a few c. c. to 100 c. c. The fluid may come away drop by drop or with a spurt, thus indicating the condition of cerebral pressure. Raising the head and shoulders caused the fluid to flow more rapidly. The patient should lean forward

and the spinous processes be marked and counted from above downward to prevent mistake in location. The after treatment of the site of puncture consists in covering the spot with iodoform collodion.

The possible dangers attending the operation are infection of the site of puncture, and a broken needle from injudicious manipulation. In three reported cases of cerebellar tumor, death followed the puncture in from six to forty hours; but it seems unfair to assume that death was due to puncture, for cases of cerebellar tumor die when not punctured.

Wentworth reported his first case of lumbar puncture in the *Boston Medical and Surgical Journal* in 1895, in which, after withdrawing 5 or 6 c.c. of fluid, alarming symptoms appeared, pulse became 250, patient screamed, was restless, extremities cold and color bad; but patient improved soon and recovered in a few days.

Jacoby reported two cases of spinal meningeal hemorrhage, due to injury, with paralysis of lower extremities, loss of control of sphincters, etc., in which puncture, with escape of bloody fluid, was followed by complete recovery in one case, weakness of the extensors and peronei muscles and loss of knee-jerk remaining in the other.

For diagnosis, withdrawal of fluid from the subarachnoid space demands attention, for in this it is no longer an experiment. The results of necropsies confirm its value as an aid in diagnosis of diseases of the brain and, possibly, of the spinal cord. In the only case recorded of tubercular meningitis, terminating in recovery, in which the diagnosis was made positively, two punctures were made a week apart and tubercle bacilli found.

The summary in Dr. Wentworth's paper on "Puncture of the Subarachnoid Space," *Archives of Pediatrics*, Aug., '96, is:

1. The normal cerebro-spinal fluid contains neither cells nor fibrin and is perfectly clear.

2. In cases of meningitis, the cerebro-spinal fluid is invariably cloudy when withdrawn. The degree of cloudiness is to some extent proportionate to the amount and character of the exudation in the meninges.

3. The cloudiness is caused by cells. The character of the cells differs with the variety of the meningitis. After withdrawal, more or less fibrin is formed in the fluid. The presence of these cells and fibrin is pathognomonic of inflammation in the meninges.

4. The cloudiness is oftentimes so slight that close inspection is necessary to detect it.

5. The operation is not difficult to perform on infants and young children. It is not dangerous if strict cleanliness is observed.

6. The differential diagnosis between the different kinds of meningitis can be made by microscopic examination of the sediment, by cultures taken from the fluid, and by inoculation experiments.

7. Inoculation experiments afford the surest means of determining tubercular meningitis. It is of value to distinguish between the different varieties in order to ascertain if tubercular meningitis is recovered from.

8. In normal cerebro-spinal fluid a faint trace of albumin is present, about 0.02 per cent. or less, by quantitative analysis. In meningitis the amount of albumin is increased and has varied from 0.03 to 0.1 per cent.

9. In one case a diagnosis of general infection with *staphylococcus pyogenes aureus* was made from cultures taken from the cerebro-spinal fluid."

Lichtheim has constantly found sugar in tumor of the brain, and considers that a considerable quantity of sugar in the cerebro-spinal fluid—providing the patient is not a diabetic—should lead to suspicion of tumor.

In tubercular meningitis examination of the blood will often throw light, for if suppuration is absent, the leucocytes seldom exceed 10,000 in number, as shown by V. Limbeck.

DR. WENNER's paper included reports of four cases operated upon by himself, which were of much interest, although the conditions were such as to render any permanent relief impossible.

The first case was one with syphilitic lesions of the brain. The patient, when first seen, had numerous syphilitic ulcers of both legs which healed rapidly under treatment. Later, the onset of severe pain in the left temporal region, occurring especially at night, which proved intractable to treatment, elevated temperature, rapid and weak pulse, sluggish pupils, choked disks, stupidity and extreme restlessness with automatic movements, led to a diagnosis of syphilitic meningitis, with a probable endostial growth in the region of the pain, although the possibility of tumor was admitted.

On Aug. 24, the patient having been without sleep or rest for four days, puncture was made and 25 c.c. of fluid, having an almost imperceptible cloudiness, withdrawn. Bacteriologic examination showed the fluid to be sterile, cover glass preparations, cultures and animal inoculation being negative. The fluid showed fibrin shreds and some leucocytes, the majority being polynuclear. Fehling's solution gave an immediate test for sugar, and the bismuth test was also positive. There was 0.05 per cent. of albumin. No rise in pulse or temperature followed the operation, and the patient almost immediately went off into a quiet sleep. After awakening he was much brighter than he had been for three weeks. This amelioration continued for a week,

when untoward symptoms returned. From Sept. 2d the patient failed rapidly, stupidity and convulsions appearing. On the evening of Sept. 6th a second puncture was made and 35 c. c. of cloudy fluid withdrawn. Restlessness was lessened, but beyond that no effect was noticed. The fluid contained considerable sugar. The centrifuge showed 0.25 per cent. of albumin. The sediment contained fibrin and polynuclear leucocytes. Cover slip preparations failed to show bacteria. Necropsy of the head only showed a thickening of dura matter above, with adhesions between dura and skull and between dura and brain. On section of the hardened brain a large tumor was found in each lobe of the cerebrum, springing from the lateral ventricles, and communicating cavities in the two lobes of the cerebellum.

The other cases reported by Dr. Wenner were of accidental injuries to the head, which resulted in death.

Lumbar puncture, however, assisted in throwing much light upon the internal conditions of the cranial cavity in each case, *ante mortem*, by showing the alterations and changes which had taken place in the normal fluids of the cavity and the nature of inflammatory exudations present, if any.

*Regular Meeting, December 4th, 1896.*

The President, Dr. J. E. Cook, presided. Nomination of officers for the ensuing year resulted as follows: For president, Dr. M. Rosenwasser; first vice president, Dr. Carl A. Hamann; second vice president, Dr. W. E. Bruner; secretary, Dr. P. Maxwell Foshay; treasurer, Dr. Fred C. Taylor; pathologist, Dr. A. P. Ohlmacher. Nominations were also made for censors, trustees and trustees for the Academy of Science.

DR. CHAS. B. PARKER read a paper on "The Use of Pure Oxygen with Chloroform in Surgical Anesthesia." He had made use of this method of administering chloroform for about one year, but only in cases in which it was deemed dangerous or unsuitable to give an anesthetic in the usual way. The apparatus used consists of an oxygen tank, rubber gas bag, rubber bulb, graduated glass cylinder for chloroform and a suitable face mask, all connected in such a way that pure oxygen may be forced through the column of chloroform and loaded with its vapor. The dimensions of parts are such that the amount of chloroform supplied to the patient is less than the minimum dangerous quantity.

He had tabulated 65 cases. The time required for complete narcosis varied from four to ten minutes. The pulse, usually unduly rapid before beginning administration, decreased in rapidity until complete anesthesia was reached, and then increased during continuance of the operation. The character of the pulse was at no time such as to cause

anxiety. The respiration remained good, and it was at no time necessary to discontinue the anesthetic before completion of the operation on account of respiration. There was no pallor and no severe or continued vomiting. The amount of chloroform was much less than usually required.

The observations made in connection with these cases establish the value of the method. The question of vomiting is an important one. It was totally absent in 60 per cent. of the cases, and in but few did it occur during the operation. In three of the cases it was deemed best to discontinue the oxygen either on account of the condition of the patient or of the apparatus. The results with oxygen were such as could not be secured with ether or chloroform alone. The disagreeable after effects usually present for two or three hours were absent, and quick recovery from anesthesia the rule.

With ether, oxygen cannot, of course, be given as with chloroform, but pure oxygen may be given first and the ether follow. Pure oxygen is, however, irritating, and patients rebel after about four minutes of inhalation.

In the discussion, DR. D. P. ALLEN said that he had seen Dr. Parker administer oxygen and chloroform in this way and was impressed with the value of the method. There is some objection in the inconvenience of transporting the oxygen tank, but it might be carried compressed in a small tank. The question of vomiting in anesthesia is very important, as is the danger of bronchial irritation. The employment of those thoroughly skilled in administration is important, and the English plan of having professional anesthetists a good one. He had been greatly interested recently in observing the use of nitrous oxide to the point of unconsciousness, followed immediately by ether. The time necessary for anesthesia was two and one-half to three minutes, and he was assured that it was safe. In some clinics it is a routine practice to administer oxygen for an hour or more after laparotomies.

DR. F. E. BUNTS said that the doing away with nausea under this method will prove extremely valuable. The nature of the operation has much to do with the nausea following, and the nausea is not of so much importance in other operations as in those on the abdominal viscera. He wished to ask if any increase in capillary oozing was noticed with the use of oxygen.

DR. J. H. LOWMAN asked if shock was diminished where oxygen was used. He mentioned a case where he had used oxygen in profound shock following laparotomy in an exhausted patient. The tension of the pulse increased and the symptoms became less serious within a few minutes after beginning the administration of oxygen, which was continued for a half hour, when the patient recovered consciousness and objected vigorously to its continuance.

DR. GEO. W. CRILE mentioned recent experiments by Waller showing the effect on nerve fibre of various drugs; the excitability of the nerve being shown by ordinary "negative variations," under the influence of the exciting electric current. The nerve function was suspended under influence of ether, but reappeared with access of air. With chloroform, the nerve was killed when the drug was crowded, but with smaller amount the function was only suspended and was restored by aeration. Carbon dioxide counteracted to some extent the action of chloroform.

DR. JOHN G. SPENZER said that one of the most important points was the amount of chloroform used. Experiments with animals have shown that 1% by volume of chloroform and 3½% by volume of ether in admixture with air may be inhaled for a number of hours continuously without injury. A larger percentage of ether acts more rapidly, but becomes also more dangerous. Inhalation of oxygen for about 10 minutes gives the full amount that can be absorbed, and afterwards for a time it is immaterial whether oxygen or air is given. If the oxygen is withheld, its effects continue for about a half hour, when it may be again administered. The good effects of oxygen are due to its stimulating effect on the respiratory center. Chloroform and ether poison this center and nearly all cases of poisoning by these drugs are due to such action.

DR. W. E. WIRT said that many accidents with chloroform occur at the beginning of administration and are due to reflex action from the nose. Cocain has been used to prevent this effect, and in a similar way, by the use of nitrous oxide at first, the reflexes are abolished and the use of chloroform made safer.

DR. PARKER, in closing the discussion, said that the question of the choice of anesthetics is an important one. Many are working on the question of diminishing the danger of the anesthetic, which is in many operations the only danger. Small cylinders of oxygen, weighing about 10 lbs., are in use, and should be available for sending to the place of operation by previous order, as are other materials and dressings. He had never observed any increased capillary hemorrhage. He would not advise the use of chloroform and oxygen in all cases, but only where ether is contra-indicated.

DR. A. P. OHLMACHER exhibited a fish caught two years ago, which had a large tumor in the tail and numerous secondary tumors of various sizes in both the parietal and the visceral peritoneum. The tumors are made up of small round cells and appear to be round cell sarcomata. The organism usually found in tumors of fish was not present.

# CLEVELAND MEDICAL LIBRARY ASSOCIATION.

*Annual Meeting, December 7, 1896.*

The Association met in the rooms of the Chamber of Commerce. The President, DR. HANDERSON, being unable to be present, DR. WM. T. CORLETT was made chairman. The Treasurer, Librarian and Secretary presented their reports for the year.

## TREASURER'S REPORT.

Funds turned over by predecessor.....	\$393.83
Collections to December 7th inclusive, covering dues, original subscriptions and interest.....	940.58
<b>Total receipts</b>	<b>\$1334.41</b>
<b>Disbursements.</b>	
Medical books and journals.....	397.16
Books, stationery, postage, insurance and commissions....	185.46
<b>Total expenditures</b>	<b>532.62</b>
Balance in bank.....	801.79
Note held by Treasurer.....	100.00

The Chairman of the Finance Committee reported :

Amount invested in real estate mortgages at 6% interest	\$5,300.00
Amount in bank.....	439.22

As soon as a good investment can be secured the cash on hand (more than \$1250) or as much of it as possible will be invested. In the meantime it is drawing interest at the bank. The books in the library are insured for \$2,000.

## LIBRARIAN'S REPORT.

Number of books now on the shelves.....	1,112
Number of bound volumes of journals now on the shelves.....	845
<b>Total.....</b>	<b>1,958</b>
Increase over last year.....	446
Number of journals subscribed for.....	40
Number of journals donated by <i>Cleveland Journal of Medicine</i> ....	100
<b>Total number on file.....</b>	<b>140</b>

The following donations have been received during the year :

Mrs. I. N. Himes, volumes, books.....	120
Drs. W. J. Scott and N. Stone Scott, volumes, books.....	79
Dr. A. R. Baker, volumes of unbound journals.....	450
Dr. H. S. Upson, volumes of unbound journals.....	40
“ “ pamphlets.....	100
Dr. P. M. Foshay, volumes of unbound journals (mostly).....	45
Dr. W. T. Corlett, books.....	6
Dr. W. T. Miller, books.....	1
Dr. E. F. Cushing, volumes of unbound journals and books.....	31
Dr. W. S. Hough, books.....	60
“ volumes bound journals.....	32

A large number of unbound journals are awaiting binding. There is on hand a large number of duplicates which



it is hoped to exchange sometime in the future. Several shelves of new books have recently been set apart for the convenience of users of the library. The most important addition to the library during the past year is a complete set of the *Medico-Chirurgical Transactions*. The Librarian asks for donations of books or periodicals.

The Secretary gave a brief report of the work done by the Council during the past year, and the President's address, which was read by the Secretary, briefly discussed various subjects pertaining to the administration and further development of the library.

The officers of the Association for 1896 were re-elected for the coming year: President, Dr. H. E. Handerson; Secretary, Dr. Wm. E. Bruner; Treasurer, Dr. H. G. Sherman; Librarian, Dr. C. A. Hamann. Dr. J. C. Wood, Dr. E. G. Carpenter and Dr. J. E. Cook were elected trustees to serve for three years.

After the conclusion of the business of the meeting, DR. G. E. WIRE, LL.B., late Superintendent of the Medical Department of Newberry Library, Chicago, was introduced by the chairman and addressed the Association upon "The Medical Library as a Factor in Medical Progress."

He said that the present age is an age of science and of the laboratory, but it is also the age of the library. The spirit of original investigation is shared by medicine with other arts and sciences. Text-books forty years ago had to take much of their material at second hand and contained largely clinical observations. Knowledge of pathology was deficient.

The present demands scientific knowledge and lengthened courses of study. The man with a library at hand shows a breadth and thoroughness in research not to be found in his less fortunately situated brother.

In this country there are about ten libraries belonging to associations of medical men, and the same number unconnected. The library of the Surgeon General's office at Washington is the largest, and is for the benefit of the profession of the whole country. The best known library of an association is that of the Academy of Medicine of New York. The library was the nucleus around which were gathered the various departments of the Academy. The twenty-five or more medical publications in New York City indicate the value and importance of the library as a factor in their successful existence.

The Philadelphia College of Physicians, which is not a teaching body, has a substantial building, a fine library and an interesting museum. The library contains many old books and fine bindings, appropriately so in a city which has been a center of book production since the time of Franklin.

The Boston Medical Library Association is well housed and has pleasant assembly rooms. The library contains many books from Dr. Holmes's library.

The Medical Department of Newberry Library is unconnected with a medical association. For six years not a week has passed without an article in print which could be traced directly to this library. Since its establishment there has been a noticeable increase in the number of small libraries in hospitals and schools.

In Cleveland he had not been prepared to find the degree of progress shown in the library. He found an unusually good collection of journals and of valuable works. In the condition of its medical schools and hospitals are to be seen the signs of the times for this city. The Rowfant Club has secured a permanent home, the medical library should be a rallying point for the medical profession. The older men should put in their books, the younger men the enthusiasm.

After the conclusion of Dr. Wire's address, questions in regard to the policy and management of the library were discussed by various members of the association. The points most prominently brought out in the discussion were the desirability of a greater supply of new text-books to interest the younger men and students, of thorough indexing and an attendant constantly present to assist readers in securing the information wanted and, most of all, a medical home, which would be a centre of intellectual and social activity among the medical men of the city and from beyond its borders as well. The promise of fulfillment of this last need was held out by the plans of the Academy of Science, now in process of organization.

DR. WIRE, in closing the discussion, said that one "can't expect books to step down from the shelves and walk up to the reader." The great thing is the human element—somebody to administer them.

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## Correspondence.

### THE MEETING OF THE SECOND PAN-AMERICAN CONGRESS.

MEXICO, November 23, 1896.

*Editor Cleveland Medical Gazette:*

MY DEAR DOCTOR:—What would have been the extreme tedium of six days' continuous railway travel to the City of Mexico, was wholly relieved by the splendid appointments and good service aboard the "official special train," the delightful companionship of physicians unburdened with professional duties; and the rapidly passing and

matchless panoramic view of flora, from the northern oaks to the southern pines, palmettos to cactus and mesquite to the pepper and cypress ; from dead fields and falling leaves of Ohio, to the green fields carpeted with flowers in Mexico ; from the fertile Mississippi Valley over and up the arid alkali plains, to 8,000 feet altitude ; from the Anglo-Saxon to the Spaniards, the Negroes, the Aztecs and every possible hybrid product ; from mansions to adobes ; from the home of the well-clad to the region of the solitary garment and nature's garb,—all the climate, civilization, flora and fauna passing swiftly by the windows.

A committee and a brass band gave us welcome on our arrival Sunday morning, and in the afternoon our blood ran cold for two hours, while six bulls and seven horses were killed in a brutal bull-fight—a nightmare of ten thousand blood-thirsty, shrieking Spaniards, Mexicans and Indians ; of banderillos, picadores and matadores ; of disemboweled horses, bleeding and dying bulls, fainting women etc.

In the evening an informal reception was given by the faculty of medicine ; on Monday, meeting of the sessions ; in the evening the formal opening of the congress in the Theatre National, President Diaz presiding. The exercises consisted of addresses of welcome, several popular scientific addresses, interspersed with splendid music. The theatre was beautifully decorated, flags of the countries participating profusely displayed. The exercises were extremely impressive. The meetings of the sessions were well attended, especially general medicine, general surgery, and obstetrics and gynecology. Bacteriology and physiology, while not largely attended, enjoyed splendid papers. The ophthalmologic etc., were very busy.

Hygiene and public health sections were particularly interesting on account of the questions of far-reaching importance presented. Obstetrics and Gynecology absorbed abdominal surgery. On the whole the work of the sections was of a high grade. The papers were abstracted and printed so that everyone might participate in the discussions. The work of the interpreters was generally very good.

In Latin-American countries physicians are drawn from a better class than in the U. S. ; the scientific awakening in these countries, as shown by their laboratories, their curriculum of study, the products of their researches, with which we all might with profit become more familiar, and lastly the personnel of the professional men are most promising for the future of medical science in the Western Hemisphere.

In the way of entertainment the members were surfeited with receptions, luncheons, excursions, dinners etc.

Too much cannot be said of the hospitality of Mexico. The next meeting will be held in Caraccas, in 1899.

Very sincerely yours,

GEORGE W. CRILE.



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## Editorial.

### THE SECOND PAN-AMERICAN MEDICAL CONGRESS. ABSTRACTS OF THE MORE INTERESTING PAPERS.

#### CLINICAL DIAGNOSIS OF TYPHOID FEVER.

A paper with this title was presented by Dr. Andrade Penny, assistant in the Hygienic Laboratory of the U. S. Marine Hospital Service, Washington, D. C.

The paper is based upon some considerations on the sero-diagnosis, Ehrlich reaction and Elsner's method for the isolation of the typhoid bacillus. The author makes a his-

torical review of previous observation on the action of the serum of immunized animals against the bacteria that produce the disease ; then describes the method widely used in which a drop of the patient's blood serum is mixed with ten or fifteen drops of a culture of typhoid, and if the disease is typhoid it will cause coagulation and immobilization of the culture in a short time.

Johnson, of Montreal, discovered that dry blood from typhoid patients acted in the same way as the fresh serum.

The author experimented after the method of Johnson, receiving a drop of blood on a clean slide, taken to laboratory, dissolved with five drops of water, and mixed a "loop" of typhoid culture with a "loop" of the blood solution. Examining by the hanging-drop method, he confirmed the results arrived at by Johnson. He examined twenty-eight cases diagnosed as typhoid, three of doubtful diagnosis, two of tuberculosis, one of septicemia, one of pneumonia, two of "operative fever," one of erysipelas, one of dysentery and one of malaria.

The 28 cases of typhoid gave the reaction in 26 and none in two ; but in these the temperature and the clinical history showed they were not typhoid, and in none of the other named diseases was the reaction found. Two of the doubtful cases presented the reaction, one did not, and the autopsy showed it to have been dysentery.

After a critical review of the investigations and observations on the Ehrlich reaction and a series of experiments on dogs, the author concludes as follows: The red color taken by the urine on the addition of the reagents is not due to any special chromogenic substance in the urine, but to the nitrite of sodium which enters into the composition of the reagent, and that when the Ehrlich reaction is of service there is in the urine a substance which liberates the nitrites.

The author did succeed with media prepared according to Elsner's formula ; but using Grimbert's modification which consists, among other things, in making the acidity equal to 4 or 5 c. c. of aqua calcis, the author could recover the *bacillus typhosis* and *coli communis* from water purposely contaminated with pure cultures of these bacteria, but he could not differentiate the colonies until the third or fourth day.

REPORT OF A CASE OF PYOSALPINX IN A YOUNG GIRL,  
WITH REMARKS ON ABDOMINAL WORK.

This paper was read by H. L. E. Johnson, M. D., Professor of Gynecology, Medical Department, Columbian University, Washington, D. C.

This case was reported with special reference to its etiology. A girl 17 years of age, whose previous health had been perfect, and in whom venereal infection was absolutely ruled out, was at the seashore engaged in surf-bathing during her menstrual period. In consequence menstruation was suppressed accompanied by severe symptoms, leading to three months of invalidism. The diagnosis at the end of this time of double pyosalpinx with cystic degeneration of the ovaries was confirmed at the operation. Her subsequent health has been perfect. The operation was performed a year ago.

In abdominal operations the author employs absolute asepsis. The abdominal wound is closed by a single layer of interrupted sutures, preferably silk-worm gut. Drainage is avoided as much as possible. Immediate closure preferred. The following method of preventing vomiting and colicky pains, subsequent to operation, is employed:

Thorough purging with salines during several days previous to operation; on morning of the operation administer calomel; one hour before operation one to two ounces of saturated solution of magnesium sulphate—the object being to establish the intestinal circulation as soon as possible. Evacuation of the bowels is secured in the first 24 hours. If this does not follow the medication, an enema of one to three ounces of sulphate of magnesia with a dram to an ounce of turpentine in from a pint to a quart of water, is administered.

UTERINE FIBROIDS, COMPLICATED WITH PREGNANCY.

The author, Dr. A. Vandever, of Albany, N. Y., after a critical review of the literature of this subject, reported two cases of total hysterectomy—the uterus containing, in each case, a fetus of about four months. In the first case a positive diagnosis of pregnancy previous to operation was impossible; in the second, an exact diagnosis was made.

Both patients made good recoveries. The author's views may be expressed as follows:—

Whenever the location of the tumor is not likely to interfere with delivery, or its not-too-rapid growth will admit of delay until after the viability of the child, a conservative course is clearly indicated. Myomectomy, in the interest of the child, is justifiable in cases in which dystocia would become a strong probability.

At or near the term, in advent of obstruction to delivery, supra-pubic hysterectomy is probably the safest course.

The loss of mothers ought not to exceed 10 per cent. The children ought nearly all to be saved. The author says: "I am most emphatic in my belief that in cases of uterine fibroid, with suspected pregnancy, a careful, thorough examination should be made, and if the case be one in which there is a doubt as to a possibility of delivering the patient at full time, an early operation should be done and a complete one."

#### A NEW SERO-THERAPIC PROCESS FOR THE TREATMENT OF GREEK LEPROSY.

By Dr. Juan De D. Carasquilla, L. Instituto Carasquilla, Bogota, Colombia.

1. The leprous patient is bled, and the serum separated from the blood.
2. The serum of the leper is injected into a horse.
3. The horse so prepared is bled, and the serum separated from the blood.
4. Patients are treated with hypodermic injections of the horse serum.
5. A horse is injected with 30 cubic centimetres of human serum three times, at intervals of ten days. He is bled ten days after the last injection, and is injected afresh after the bleeding. He is bled twenty or thirty days after and so on successively.
6. The patient receives a hypodermic injection, of one to five cubic centimetres every third day, or at longer intervals if any reaction should set in.
7. The injection produces a normal reaction, chill, fever, perspiration or accidental myalgias, arthralgias, neuralgias, cutaneous eruptions, asphyxia, vertigo, etc.
8. The lesions which are characteristic of the disease, are at the same time modified; the tubercles are smoothed down and eliminated by absorption, suppuration or scaling; the spots lose their color or disappear; the ulcers are healed up; the sensibility becomes normal; the lost senses are recovered and the general condition becomes satisfactory.

9. No medicine is administered against the reactions, unless it is lemonade to calm the thirst, and aromatic drinks.

10. The body is washed every day with warm water containing a solution of permanganate of potash, soda or lime, at one to two per thousand. The ulcerations are dressed with that same solution, aseptic cotton and a bandage to cover the whole.

11. There are no special requirements as to diet.

12. The injection is not administered when the pulse is accelerated, the temperature above the normal, or any other symptom of reaction shown.

13. The horny ulcers in the feet are treated with salicylic acid in colodion. Those in the nasal and pharyngeal mucous membranes are treated with solutions of borate of soda; the conjunctivitis, with sulphate of copper in a weak solution.

#### THE VALUE OF THE ROENTGEN RAYS IN SURGERY.

This subject was reviewed by Carl Beck, M. D. Splinters of metal or glass, bullets, needles etc., can easily be photographed, or seen by the fluoroscope. It is also easy to produce topographic-anatomical representations of the skeleton. The position of the fetus in utero has been demonstrated. Deficiencies of bones, deformities, dislocations, callus-formations in fractures, complications of fractures and dislocations, diseases of the joints (pseudarthrosis, ankylosis, hypo-, peri- and exostosis) osteitis and osteomalacic processes are all representable. The area of ossification in rachitis and the dentition line in hereditary syphilis, can be recognized, as well as caries of bones, tissue change in arthritis, osteophytes, calcination and ossification of cartilage and tumors of the bones. Koenig recognized a sarcoma of the tibia, a light mass of a lobular structure contrasting with the dark diaphysis of the tibia.

Suspected green-stick fractures can be easily diagnosed and the manner in which a fracture is treated also may be demonstrated by reproducing the limb together with the bandages, splints etc. The Roentgen picture is thus a document, illustrating the treatment of the surgeon in charge; a record which might prove to be of great value in a medico-legal way.

Neusser has proved that phosphates as well as other urinary calculi can be well shown by the rays; the great obstacle in the diagnosis being that their receptacle, the bladder, is situated in the pelvis, the bony structures of which prevent permeation by the rays. Recently it has been claimed that renal calculi could be recognized, but this is so far not sufficiently corroborated. The kidneys themselves can not be recognized. Gall-stones, unfortu-



nately, are permeable to the rays so that only a very indistinct shadow is obtained. Neusser, Goospeed and Cattel claim that they can diagnosticate their presence by this method. (The reporter had tried the rays in four cases of well diagnosed cholelithiasis, but was not able to recognize the stones by the rays.)

The skull can be photographed and foreign bodies in its cavity (bullets) can be recognized. Calcified deposits in the lungs, the remainder of old healed tubercular processes, can be seen. Schlerosis of the arteries can everywhere, with the exception of the heart, be recognized.

The organs which are kept moving by the respiratory act, particularly the diaphragm and the liver, cannot be photographed, but very distinctly observed, while in motion, with the aid of the fluoroscope. The same applies to the heart and parts of the pericardium.

Effusions, whether serous or purulent, cannot be recognized directly; but by finding a translucent space, for instance between diaphragm and liver, a subphrenic abscess could be suspected. It has been hoped that the Roentgen rays would prove to have a directly curative effect in zymotic diseases. But the vitality of bacteria, at least of pathogenic bacteria, is not impaired by the rays even if the exposure lasts for hours.

#### SOME EXPERIENCES IN THE MANAGEMENT AND SURGICAL TREATMENT OF ECTOPIC PREGNANCY.

Dr. Augustus P. Clarke, of Cambridge, Mass., presented this subject. He confined the discussion of the management and surgical treatment mainly to the results of his own experience and observation.

He said that in those cases in which the fetal sac is situated in the abdominal cavity there will not usually be an immediate demand for surgical measures. In those cases of the very earliest form of ectopic pregnancy the application of the galvanic or faradic current may be effective in overcoming the fetal life and thus enabling absorption of the remains to take place. The liability of the supervention of shock, hemorrhage, or sepsis, from the occurrence of rupture of the sac or of some of the larger arterial branches, especially after the third month of gestation, is so great that precautions should always be taken to have everything in readiness for making an abdominal section. Those cases in which rupture has occurred and the child continues to develop should be treated as circumstances demand. If the fetation has not gone beyond the third month, removal by celiotomy should be advised. When the pregnancy has passed much beyond the sixth month it may under proper precautions be

allowed to continue until the end of the eighth month. In those really desperate cases of rupture of the sac or of blood vessels, prompt resort to celiotomy should be regarded as the chief reliance for help. This precaution should be adopted whether the hemorrhage is the result of a primary rupture or as a sequel to the yielding of a partially restored vascular tissue. The nearer the gestation has reached the close of its term, the greater will be the probability of saving the life of the child. The immediate removal of the placenta in such cases is often attended with extreme danger; for this reason the gestation sac should sometimes be sutured to the peritoneum and the placental mass before its removal be allowed time to undergo contraction and become loosened from its attachment. If it is deemed wise to effect immediate removal of the placenta it can best be done after clamping and tying the ovarian and uterine arteries; should the fetal sac then be found too firmly adherent to allow its safe removal, suturing its edges to the parietal peritoneum and the employment of drainage will be required.

In those cases in which the fetation is intraparietal the liberation of the child can be more safely effected, so far as the mother is concerned, by resort to hysterectomy than by the adoption of any other surgical procedures. In some cases closure of the rent by aseptic animal sutures and the stitching of the opening to the abdominal wound might prove sufficient for overcoming the hemorrhage. Cases that sometimes give rise to most alarming symptoms are those in which the fetation takes place in some portion of the Fallopian tube. Hemorrhage from rupture of the sac or from the yielding of the vessels near the fimbriated extremity of the tube can best be controlled by suturing the ruptured vessels through an abdominal incision.

#### ON THE TREATMENT OF WHOOPING COUGH BY MEANS OF ASAPROL, A SOLUBLE PRODUCT OF B-NAPHTOL.

by Dr. Moncorvo, Rio de Janeiro, Brazil. The investigations carried out with respect to the biologic properties of the microbe of whooping cough have allowed us to discover that sublimate, resorcin, citric acid and naphthol are the only antiseptic agents which are capable of arresting its development. The first of these remedies cannot be adopted in ordinary practice without danger. Resorcin and citric acid have already been extensively employed with great success by application in the glottis. As B-naphthol is insoluble and consequently is not adapted to this use, he had employed a soluble product of it with the most remarkable results.

Asaprol can be said to be one of the most efficacious means for combating whooping cough.

## ON CONGENITAL ELEPHANTIASIS.

Dr. Moncorvo claims to have been the first to demonstrate the frequency of elephantiasis in youth, contrary to the received opinion up to this date. He later on insisted in proving that the evil can very well be developed even during the course of the fetal life. He has before published ten cases of this character and relates in the present paper an abbreviated history of two others, in one of which the disease affected the face, a part that is not commonly attacked. In Dr. Moncorvo's opinion this neoplasia arises from an inflammation of the lymphatic vessels, which, according to his own investigations and those of Moncorvo, Jr., generally proceed from the presence of the streptococcus of Fehleisen, which must pass from the maternal system to that of the fetus through the channel of the placenta.

## TWO CASES OF ARTERIAL CATHETERIZATION.

In this very interesting paper Dr. Roque Mancozet of Michoacan, Mexico, presented a short history of two patients on whom he performed amputation of the thigh in the lower third on the first, and of the leg at the point of election in the second. Both men were operated on the right side and the cause was dry gangrene.

In the first case a rheumatic endocarditis produced embolism of the femoral artery, thereby causing gangrene of the foot and leg up to the upper third. Having made certain of the diagnosis, he amputated the thigh in the lower third, and to his great surprise, on removing the hemostasis, no arterial blood issued, but only venous. The femoral artery was completely open and empty, and he then decided to perform a real arterial catheterization, with the object of removing the obstruction in the artery and saving the patient from the disarticulation of the thigh. This operation was carried out by means of an American urethral bougie, made of whalebone, and carefully disinfected, by lightly pressing against the obstacles, and with the help of the left hand, practicing a soft massage in its neighborhood and over the artery. The operator commenced first by moving the embolus and then loosened it, immediately after which a torrent of arterial blood burst forth.

The history of the other case is similar to the above, and in both cases his methods resulted in a perfect and lasting success.

The author afterwards entered on some practical observations arising from an analysis of the two cases, and requested the opinion of the members of the section.

## A CONTRIBUTION TO THE STUDY OF HYPNOTISM.

Dr. Josi Luna, of Colima, Mexico, said in substance: Being thoroughly convinced that in all doubtful or controversial questions of science, well observed facts beyond the reach of criticism are those which really decide, he had determined to bring before this learned meeting a short series of facts of this character, protesting that he had been in no way governed by any prejudice or dogma whatever, which could in any way lead him to alter their nature.

1. Suggestibility is the fact that we find most constantly appearing in this combination of physiologic and psychologic phenomena that constitute hypnotism, and it is therefore undoubtedly one of the surest means of controlling the diseased or healthy brain and impressing it with fixed ideas, and thereby nullifying or counteracting at least, the insane fixed ideas or customs which have taken possession of the subject.

2. It is a fact perfectly well confirmed by his own experience, that a suggestion can exercise its influence on phenomena of vegetable or animal life, which in the ordinary course of things are independent of consciousness or will, and from this point of view, suggestive therapeutics constitute a powerful resource in many diseases, that at first sight, would appear to be entirely disconnected in their origin from cerebral innervation.

It appears that by this means the brain recovers all its powers over the system.

3. This last characteristic of the suggestion appears easy to explain. In the same manner as sensation is normally transformed into an idea, the idea which is suggested is also transformed into sensation, and once the sensible images are developed in the brain, by reflection or excitement of the motor nerves, as in a normal state, they provoke the execution of the suggested act, deducing from this mechanism the following law, which is perfectly capable of demonstration: In proportion as the act suggested is better understood and develops better defined and lively sensations, the suggestion will be easier to execute.

4. The suggestion is also the simplest and easiest means for producing a hypnotic state. In his first sitting, he generally makes suggestions to the patient, with respect to the means and the time that he will employ to put him to sleep on the next occasion.

5. In every case it is indispensable to make certain that the subject does not simulate sleep by subjecting him to different proofs.

6. He feels certain of the efficacy of hypnotic suggestion in cases of hysteria. He first proceeds to investigate and eradicate the fixed sub-conscious idea or ideas that

habitually produce the attack. He afterward directed his suggestions toward modifying the impressionability of the subject and his ways of controlling his emotions. He had not yet obtained any favorable results in epilepsy, but was well acquainted with the evident efficacy of suggestion in the cure of dipsomania and morphomania. One of his hypnotized patients was able to tell the exact hour, even to the minute, by his watch, which was closed and out of order. As this phenomenon might have some relation to the X-rays, he states that the watch case was made of 14 carat gold, with a thickness of one millimetre. The same patient had the singular power of waking at the exact hour and minute that was indicated to her, whatever might be her position with respect to the clock in the parlor, and sometimes when there would be two or more rooms between herself and the clock. Another singular point in this patient was her great sharpness of hearing.

In conclusion the author queried why it is, that, notwithstanding the valuable evidence that has been furnished and the comparative facility for verifying and applying the facts, hypnotism has not yet entered more fully into medical practice.

#### HYPNOTISM AS A THERAPEUTIC MEANS.

This subject was reviewed in an able and practical paper by Dr. Guillermo Parra, of Mexico, who said that he employs hypnotism in his daily practice. An experience of ten years is the only guide he has in this work. He did not care to touch upon the question of doctrine, but only to present a summary of the cases and conditions in which he had found hypnotism useful.

In the organic diseases of the nervous system, in hemorrhages, myelitis etc., he had never found it give any good results whatever.

In strong neuroses and in hysteria, it has a wide field of application; all such manifestations are tractable and can be controlled by hypnotism. In proportion as they are more recent, they are that much easier to control, and they are more distant from the ordinary type of hysterical attacks. In the hysterical localizations, there is no pharmaceutical medicament that can take its place. In old established hysteria, the hypnotizations should be continued with perseverance, varying the suggestion in every possible way.

In cases of epilepsy, both essential as well as Jacksonian, he had never seen any favorable results. In mental alienation, madness, imbecility, alcoholism etc., he could give no opinion. In the neuropathic perturbations, palpitations of a nervous origin, insomnia, nocturnal incontinence of the urine, headaches, neuralgias etc., hypnotism gives good results.

It generally fails in cases of neurasthenia. In rheumatisms, metritis, gastro-intestinal affections, bruises and wounds, in urethritis, otitis, arthritis and dermatitis, hypnotism is useful in calming the pain and giving the practitioner time to employ pharmaceutical methods.

In cases of anemia it is very useful, as it obliges the patient to follow the hygienic prescriptions and calms the nervous disturbance. In menstrual disturbances it calms the pains with wonderful rapidity. As a surgical anesthetic, it has very few applications. As an anesthetic in accouchements, it usually gives good results.

It has a thousand other applications in daily use, which facilitate the applications of instruments for diagnosis and for treatment. It is a powerful sedative to the nervous system and in many cases a remedy that cures with wonderful rapidity.

All practitioners ought to study hypnotism and apply it to their patients in those cases that are above indicated.

#### TREATMENT OF STRICTURE OF URETHRA BY CONTINUOUS ELASTIC DILATATION.

By Dr. Robert J. Wilding, Malone, New York. The object of this paper was to bring to the notice of the profession a method of treating stricture of the urethra, more particularly those seated in its deeper portions, which, in the hands of the writer, has proved very successful, and which has the merit of being simple in execution, and so far has proved to be free from many of the dangers necessarily attendant on the majority of other methods in common use. The principle involved in its execution consists in taking advantage of the fact that continuous elastic pressure tends to produce absorption of such tissues as are subjected to its action. This applies to the enlargement resulting from inflammatory processes as well as to normal tissues. Continuous elastic pressure also quickly relieves spasmodic or nervous contractions, apparently by tiring out the living tissues. As far as known to the writer, this method had not previously been brought to the notice of the profession. Its execution is simple, and being carried out almost entirely by the use of elastic soft rubber instruments, which are carefully disinfected, is not likely to cause abrasions and so almost entirely does away with the danger of septic infection. The stricture is dilated by passing a soft rubber catheter, which is a few sizes larger than the calibre of the stricture, through it and leaving it *in situ* until it plays freely therein, when another of a larger size takes its place, which process is repeated until the desired result is obtained. The average time each instrument has to remain in the urethra is from twenty-four to forty-eight hours. The catheters are passed

by being stretched on flexible guides, so that they become small enough to pass through the stricture.

#### SOME POINTS IN THE SURGICAL TREATMENT OF EPILEPSY.

By Dr. Edmund J. A. Rogers, of Denver, Col. These points may be briefly summed up as follows:

1. Surgical relief should be attempted in cases of partial or Jacksonian epilepsy, although externally the skull presents no evidence of disease.

2. The sooner surgical interference is undertaken after the occurrence of the initial spasm in all operable cases, the greater the probability of relief to the patient.

3. In a case of epilepsy attended with depression of the skull the depressed bone should be removed regardless of the character of the convulsions, provided the injury to the head antedated the initial convulsion.

4. In all cases of partial or Jacksonian epilepsy, the cortical center for the first muscles concerned in the convulsion should be removed, even though the epileptic condition has existed only for a few months, and the cortical center presents no macroscopic evidence of disease.

5. Great care should be exercised in determining the exact seat and extent of a given center, and its entire area should be removed.

6. The surgical treatment for convulsions due to infantile cerebral paralysis is usually unsatisfactory.

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#### EDWARD L. ORMSBEE.

*Died at Cleveland, Nov. 23, 1896.*

To many of the readers of the CLEVELAND MEDICAL GAZETTE, and particularly to the alumni of Western Reserve Medical College who have graduated since 1880, the above announcement will be of interest, and probably few names could be mentioned which would recall so many memories of college life, particularly of the "life behind the scenes," as that of the "Old Jan," as he was familiarly called by the students.

Mr. Ormsbee was janitor of Western Reserve Medical College for about fourteen years, and during that time his position and duties naturally brought him into close contact with the students, until a feeling of mutual intimate acquaintance existed between them. He became the recipient of their confidences; into his ear they could pour the tales of

their troubles and sorrows, and with him they shared their joys and triumphs.

His naturally happy and cheerful disposition, his exhaustless fund of dry humor, his jokes and tricks of legerdemain enabled him to interest and amuse them at odd hours and smooth over many of the rough places of student life. He was a "character" with the students and exerted a marked influence upon them and formed a factor of college life which will long be remembered by them.

Mr. Ormsbee was born in Brooklyn, N. Y., in 1838, but during his boyhood his father moved with his family to New Bedford, Mass.

When about 18 years old he shipped on a whaling vessel bound for the northern Pacific ocean, and he followed this life for several years. After this he spent several years in California, a part of the time in the gold mines and a part of the time on the Indian reservation.

He came to Albany, N. Y., in 1869, where he married Miss Elizabeth Milbank, who still survives him. Mr. and Mrs. Ormsbee came to Cleveland in 1874, and for several years he spent most of his time in taxidermy. He was quite a naturalist from the practical side and was very fond of museum work. While in California he made large collections of birds, animals etc., for "Woodward's Gardens" of Natural History in San Francisco, and after he came to Cleveland he was curator of the Kirtland Society of Natural History for several years. He was a very proficient taxidermist, and many beautiful specimens of his handiwork adorn the homes of northern Ohio.

Mr. Ormsbee was quite an artist in other lines. He had a natural talent for painting, and although self-taught, he handled the brush with skill in landscape, portrait, or caricature painting. He was a skillful worker in plaster and wax, and could make casts in these materials remarkably true to copy. At one time he was requested to make a cast of a diseased kidney. He made it in wax and when completed he laid it on a tray with the original and took it to the professor, who could only determine which was the original by touch and smell.

These varied qualifications eminently fitted Mr. Ormsbee for museum work, and the misfortune of his life was the same we so often see in others. He was unable to control



circumstances so that he could devote himself to those pursuits for which he was eminently prepared by nature and in which he would have found his highest enjoyment.

JOHN E. DARBY.

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## **Periscope.**

### **THE ABLATION OF UTERINE FIBROMAS.**

*Association Francaise de Chirurgie. Tenth Congress, October 24, 1896. Extract from Gazette des Hopitaux.*

Mr. Temoin presented at this society a paper upon the ablation of fibromas accompanied by partial hysterectomy.

In April last he presented to the same society the results of a series of thirty cases which had given him twenty-nine recoveries, and at the present meeting he reported forty-five cases with forty-two successes and three deaths. These three deaths were due: in the first, to extreme feebleness of the patient; the second, to septicemia, and the third progressed favorably till the seventh day, when certain cerebral phenomena developed, from which she died. No reason could be ascertained from an examination of the pedicle or wound. To these forty-five operations he would add another which terminated fatally, but it was not performed during his term of service. The method which he employed presented no particularly new points, but was rather a simplification of methods already employed. He believed that if the pedicle has been the cause of so many failures, it has been because the pedicle was formed of all the elements constituting an uterine fibroma, that the closure was incomplete, and that, finally, the elastic provisional ligature leads to gangrene of peritoneum which is to cover the stump.

To obviate these various difficulties, the method which he employs is the following: Where the fibromatous mass is lifted out of the abdominal cavity, he secures immediate hemostasis by means of two long bladed forceps placed on either side on each broad ligament, and this is the only hemostasis used during the operation. He makes, then, a long incision, commencing as near as possible to the uterine neck and ending at the fundus of the uterus. This incision is deep and by it he is enabled easily to enucleate enormous fibromas with his fingers, and also enucleate multiple fibromas extending to the os.

When the tumor is removed there remains an enormous cavity or rather uterine basin, which one may trim out with strong scissors as far as he may desire. It then only remains to close the stump. The uterine muscle is closed in two layers by means of continuous catgut sutures, the peritoneum is closed in a similar way by a third suture. The

broad ligaments are tied as usual and the abdominal cavity washed with warm water.

Thus there no longer remains, as in the operation of Schröder, a fibrous mass to constitute the pedicle, but simply the envelope, pliable and easily gathered together, consisting of the uterine muscle. The suture is continuous and renders the separation absolute between the uterine and abdominal cavities.

The hemostasis of the stump is accomplished by the continuous sutures and one has nothing to do with an elastic ligature. M. Temoin uses neither cauterization nor drainage of the uterine cavity.

In these 45 operations the fibromas weighed from 2 to 18 kilogrammes; more than half weighed 5 kilogrammes or over; 4 weighed 10 kilogrammes or over, and one weighed 18 kilogrammes. The ages of the patients varied from 20 to 67 years. Several were complicated by salpingitis, and several patients were in a state of advanced cachexia.

By this means one may operate with but one assistant, to give the chloroform, and it was thus that M. Temoin performed most of his operations.

The average length of operation was 40 minutes.

F. E. BUNTS.

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## Among Our Exchanges.

As winter approaches we shall again be called upon to consider how we can best treat our cases of *pneumonia* in such a way as to secure the largest possible per cent. of ultimate recoveries, and the smallest possible per cent. of untoward complications and sequelæ. Basing his conclusions on a series of one hundred and twenty cases with a mortality of but two, or 1.66 per cent., DR. W. N. MACARTNEY<sup>1</sup> of Fort Covington, N. Y., maintains that *free and prolonged diaphoresis* is the antipyretic par excellence in this class of cases. His method was as follows: With the onset of the chill the patient was put to bed; four or five bricks were heated and dipped in hot water, wrapped in dry cloths and placed around him; he was then covered with blankets and kept in a profuse perspiration for from four to forty-eight hours, depending upon the effect of the treatment. If the temperature went down to normal he was allowed to dry off slowly. He was not dried with a towel nor permitted a change of linen, it being deemed wiser that the patient should lie in the wet clothing until the temperature became normal, not only to guard against exposure to the air, but because wet clothing assists in reducing the fever by evaporation and conduction.

<sup>1</sup> Med. Rec. Sept. 19, '96.

With the occurrence of diaphoresis the fever would fall, the patient breath easier and the pneumonic process subside, and in a large proportion of the cases seen within the first twenty-four hours, pain, cough and dyspnea subsided within a few hours, and the temperature dropped to normal. In more obstinate cases a mercurial purge was given, and occasionally venesection was employed where cyanosis was great and dyspnea severe on the start, but the main reliance was on early diaphoresis, continued till fever, pain, dyspnea and cough subsided, while drugs played but a minor part in the treatment. The same result which the Doctor accomplishes with the hot bricks, used to be brought about with the wet pack of the early hydro-therapists. Wrap the patient in a wet sheet and a flannel sheet over that; then cover him up well in bed; give him liquids freely and let him sweat it out. But the hot pack has the advantage of greater practicability—the patient and the patient's friends will more readily consent thereto, and in less time than you could get permission to begin with the wet pack you can have the patient nicely sweating under the hot pack, and the "line of the least resistance" is commonly preferable, other things being equal. DR. EDWARD PLAYTER, of Ottawa, Ont., confirms the statement of those who maintain that pure, cold air quiets the cough, lowers the fever, arrests the night-sweats, restores the appetite and retards the course of the disease in cases of *phthisis pulmonalis*. He says: "Over a third of a century ago, when threatened with pulmonary trouble, through the influence of a book by DR. FITCH, of New York, which chanced to fall into my hands, I was induced to sleep with a bedroom window open all night near the head of my bed in cold Ontario winter weather; and, I need hardly add, with marked benefit. In later years, in practice, I have persistently required my phthisical patients to submit to the same treatment, sometimes with a fire in the room evening and morning, and sometimes throughout the night for ventilating purposes. Never have any but perfectly satisfactory results followed," and the reason for this is not far to seek, for, "while we endeavor with the one hand to lessen the virulency and activity of the bacilli, with the other we must with equal, if not greater, interest and vigor endeavor in every possible way to purify, invigorate and fortify the individual body. Now, my contention is that there is yet no known remedy of any sort that will meet these two indications so well and effectually as pure, cold atmospheric air, breathed constantly and copiously. The colder the air the more oxygen it contains, bulk for bulk, and the more it acts as an antiseptic; the more it expands when it has been inspired, and in expanding dilates

the air-cells or chambers of the lungs, and the more it must tend to cool the over-heated lung tissues, rendering them less favorable for the multiplication of bacilli." There is nothing new about this open air treatment of *phthisis*. Early in this century DR. DWIGHT, afterwards president of Yale College, was cured by it. Half a century ago DR. BOWDITCH, of Boston, was cured by it. But it is just one of those old, simple and common-sense methods that we are apt to forget, because it is so old and so simple, in our eagerness to test some new specific that comes to us boomed by no end of foreign testimonials. And so it is well to be reminded now and then that pure, open air, taken ad libitum, fulfills the indications in *phthisis* fully as well as it did before the discovery of the bacillus tuberculosis and the advent of creosote and its congeners. The fact that *croton oil*, even in moderate doses, is apt to act with unexpected and often alarming violence, has given the drug a bad name among physicians, but in obstinate cases of *torpidity of the colon* where there is an accumulation of feces even though there be some action of the bowels daily, *croton oil* in small and repeated doses is, according to DR. A. K. BOND, of Baltimore, Md.,<sup>3</sup> the most reliable of all cathartics. Especially is this drug indicated when by reason of obstipation the stomach inclines to nausea and is prone to reject salines and other ordinary cathartics. He gives it in pill form  $\frac{1}{4}$  to  $\frac{1}{2}$  of a grain at a dose, ordinarily in combination with compound extract of colocynth, but in cases of severe nausea, preferably alone. The dose is repeated every four to six hours till the evacuation results, which usually follows about an hour after the second or third dose. Special care must be exercised by the druggist that the pill-mass be thoroughly and evenly mixed, otherwise startling results may follow. Thus given, the drug empties the colon and cleans the scybala out of the sacculations and sulci better than any other known cathartic. After the colon is once thoroughly evacuated, other and milder laxatives will usually serve to keep it clear. DR. T. LAUDER BRUNTON<sup>4</sup> calls attention to the fact that *irritability of temper* is not infrequently a physical rather than a mental infirmity, and is often a precursor of an attack of *gout*, *gouty headache*, or a symptom of mitral disease with regurgitations. For such persons he prescribes "temper powders" consisting in the case of the gouty, of twenty grains each of bicarbonate of potash and bromide of potassium, to be taken when the feeling of irritability comes on, or whenever an annoying circumstance renders an explosion of temper imminent. For those with cardiac disease he prefers the salicylate of soda with bromide of potassium. The result is

<sup>3</sup> Maryland Med. Jour., Sept. 19, '96.

<sup>4</sup> The Practitioner.

said to be gratifying to both patients and their associates. Of inhalation for the relief of *asthmatic dyspnea*, there is no end, and most of them seem to lose their efficacy after a few trials, no matter how satisfactorily they may have acted at first. It is to be hoped that the remedy proposed by a correspondent of the *St. Louis Medical and Surgical Journal* will not prove as disappointing as most do.<sup>5</sup> According to his observations a few inhalations of air mixed with carbonic acid gas, such as can be made by placing the hands around the edge of a glass filled with effervescing carbonated water and placing the mouth over the glass and breathing in the escaping gas, will produce a prolonged anesthesia of the larynx and fauces and give prompt relief to the dyspnea. The Doctor had seen the expedient tried in three cases, with very gratifying results. Where carbonated water is not handy, bicarbonate of soda and a little vinegar in a glass will answer quite as well. He has observed no ill results. By virtue of its somewhat extensive advertisement in the public journals as an abortifacient, oil of pennyroyal is hardly in high favor with the medical profession, but Dr. C. C. MOORE,<sup>6</sup> of New York City, finds it of great use in controlling excessive flow of milk and in softening "caked breast;" indeed, it sometimes seems to abort a threatened *abscess*. If the application be continued the milk will be wholly dried up. The oil is rubbed freely over the gland at intervals of an hour, friction is used over every indurated spot, and the entire gland is then covered with soft flannel smeared with the oil. If *chlorid of calcium* will, indeed, give relief in the American form of pruritus as promptly and effectually as Dr. Thomas D. Savill, of London,<sup>7</sup> says it relieves the English form of that tormenting affection, we shall have reason for profound gratitude. He gives it in doses of not less than twenty grains three times a day, increasing to thirty or forty grains, administered after eating and with a dram of tincture of orange peel in an ounce of chloroform water. It is not unpleasant to take and produces no nausea or other disagreeable symptom. During the treatment beer, sugar and sweets should be interdicted, and meat should be allowed only in very moderate quantity.

L. B. T.

<sup>5</sup> St. Louis Med. and Surg. Jour., Sep., '96.

<sup>6</sup> Quoted in Codex Medicus, Aug., '96.

<sup>7</sup> Therap. Gaz., Sep. 15, '96.

## **New Books.**

**AN AMERICAN TEXT-BOOK OF PHYSIOLOGY.** Edited by William H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. **FULLY ILLUSTRATED.** Philadelphia: W. B. Saunders, 925 Walnut St., 1896. 1051 pages. Price, cloth, \$6.00; sheep, \$7.00; half morocco, \$7.00. By subscription only.

This work was written upon the plan of collaboration, various teachers of physiology having combined their efforts for its production. The contributors are Henry P. Bowditch, M. D., Professor of Physiology in the Harvard Medical School; John G. Curtis, M. D., Professor of Physiology in Columbia University (College of Physicians and Surgeons); Henry H. Donaldson, Ph. D., Head Professor of Neurology in the University of Chicago; W. H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University; Frederick S. Lee, Ph. D., Adjunct Professor of Physiology in Columbia University; Warren P. Lombard, M. D., Professor of Physiology in the University of Michigan; Graham Lusk, M. D., Professor of Physiology in the Yale Medical School; W. T. Porter, M. D., Assistant Professor of Physiology in the Harvard Medical School; Edward T. Reichert, M. D., Professor of Physiology in the University of Pennsylvania; Henry Sewall, Ph. D., M. D., Professor of Physiology in the Medical Department of the University of Denver.

An examination of the book will assure the reader that the completeness of each section in itself, the care and thoroughness with which it has been studied and presented, with the references to the works of other writers and investigators, make this a valuable work of reference for the practitioner. Whether it will prove of superior value as a text-book for the student we have no means of knowing by experience, as no text-book of physiology upon this plan had until now been tried. It is hoped that it will prove to be an advantage to the student to study the different branches of the subject from the various points of view inevitably taken by various writers, and that he will not be confused by the varying emphasis laid upon the chemical, the physical or the anatomical lines of procedure, or by the over-lapping of the various topics. It is an evidence of advance in the system of teaching in our medical schools—that it has not been considered necessary to begin the book with any introductory work in histology or anatomy. However, each writer has been free to present so much of rudimentary matter as he has thought necessary to elucidate his subject, and each writer has rendered his subject complete and up to date, making the whole work very evenly balanced throughout. In using this text-book, the teacher will doubtless apply stress according to his own ideas of relative importance.

A TEXT-BOOK OF DISEASES OF THE NOSE AND THROAT. By Francke Huntington Bosworth, A. B. Cantab., A. M., M. D., Professor of Diseases of Throat in Bellevue Hospital Medical College, Consulting Laryngologist to the Presbyterian and St. Vincent's Hospitals, New York etc. Illustrated with one hundred and eighty-six engravings. New York: William Wood & Co.

The large and elaborate work of Dr. Bosworth on the nose and throat which only recently appeared is still fresh in the minds of all who do special work in this line, for it was for their use more particularly that it was adapted. It was a work of reference, rather too bulky to suit the general practitioner and entirely too voluminous for the student. So the two volumes of that work have been condensed into one, which is now before us. The reference portions have been omitted and the remainder "boiled down," with special effort to retain the more practical part. This labor has been performed by Dr. Aimee Raymond Schroeder. Occasionally things have been omitted which another might have thought important to insert. For instance, while a number of snares and forceps and cruettes and cauteries for removal of post-pharyngeal adenoids are figured and described, Gottstein's instrument, which is probably more popular at the present time than any of them, does not appear among them. Again, the importance of avoiding the entrance of food into the tube after intubation inadequately impressed, and the method of feeding by lowering the head barely mentioned. These are but examples of small faults compared with the general excellence of the book, which will be hailed by busy practitioners and students as a great improvement over the large work.

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AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS. For the use of Practitioners and Students. Edited by J. C. Wilson, M. D., Professor of the Practice of Medicine and of Clinical Medicine in the Jefferson Medical College etc.; assisted by Augustus A. Eshner, M. D., Prof. of Clinical Medicine in the Philadelphia Polyclinic etc. Philadelphia, W. B. Saunders, 925 Walnut St., 1896. 1326 pages. Cloth, \$7.00, sheep or half morocco, \$8.00; half Russia, \$9.00. By subscription only.

Here is the collaboratorial plan applied to a book on Therapeutics and it seems to work very well. The great number of subjects presented in Therapeutics allows the introduction of a large number of writers, among whom are many whose names have grown familiar to readers of modern medical literature. These are J. E. Atkinson, Sanger Brown, John B. Chapin, William C. Dabney (since deceased), John Chalmers DaCosta, I. N. Danforth, John L. Dawson, F. X. Dercum, George Dock, Robert T. Edes, Aug. A. Eshner, J. T. Eskridge, F. Forcheimer, Carl Frese, Edwin A. Graham, John Guiteras, Frederick P. Henry, Guy Hinsdale, Orville Horwitz, W. W. Johnston, Ernest Laplace,

A. Laveran, James Hendric Lloyd, John Noland Mackenzie, A. Lawrence Mason, Charles K. Mills, John K. Mitchell, W. P. Northrup, William Osler, Fred'k A. Packard, Theophilus Parvin, Beaven Rake (since deceased), E. O. Shakespeare, Wharton Sinkler, Louis Starr, Henry W. Stellwagon, James Stewart, Charles G. Stockton, James Tyson, Victor C. Vaughan, James T. Whittaker, and J. C. Wilson. It will be observed that all these are Americans excepting Laveran, who has the article on Malaria, and Rake, who contributed the chapter on Leprosy.

The arrangement of the subjects is quite in accordance with modern views of pathology. There are first the intoxications, then the infections, diseases due to internal parasites, diseases of undetermined origin, and finally diseases and disorders of the various systems, as the digestive, the respiratory, circulatory, renal, nervous, cutaneous. There is also a section on disorders of pregnancy (this by Parvin). The subjects are handled in a very practical manner, each writer having evidently been instructed to deal with his topic, having the idea of utility uppermost in his mind. The book might have been called a treatise on treatment.

We venture to say that the practitioner who owns this book will not keep it on an upper shelf, but in the handiest place on his desk, and that he will open it as often as any book he possesses. The preface states that "a limited number of illustrations have been introduced to elucidate the text." This statement hardly does justice, as some of the articles are even profusely illustrated. The editor has thought best to adopt some of the ideas of spelling reform, and drops the final "e" in such words as morphin, atropin, strychnin etc. He has also, and very properly, we think, retained the old-fashioned weights and measures, at the same time using the metric, so as to assist the reader in becoming familiar with the newer and better system.

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THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By A. D. Rockwell, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, Fellow of the New York Academy of Medicine etc. Illustrated with two hundred engravings. New edition, New York: William Wood & Co., 1896. 612 pages, octavo. Price, cloth, \$4.50.

The old "Treatise on the Medical and Surgical Uses of Electricity," by Beard and Rockwell, ran through eight editions and became familiar to the profession. Although the gifted Dr. Beard died before the third edition was reached, the subsequent editions, with more or less of revision, continued to appear in his name up to the present. This book is really the successor of the old, although largely rewritten and revised by Dr. Rockwell. The "cases" have



all been omitted and about a dozen pages constituting the last chapter, have been devoted to the X-ray. This chapter is very well as far as it goes, but if we might venture to suggest, a full and complete exposition of the X-ray and its application, with working details, would have been a very timely and attractive feature of a standard general treatise.

#### PAMPHLETS RECEIVED.

**INFANT FEEDING: THE ANTI-DYSCRASIC ACTION OF COW'S MILK.** By M. F. Cupp, M. D., Edinburg, Ind. From *Annals of Gynecology and Pediatrics*. Boston, 1896.

**EARLY DIAGNOSIS OF CARCINOMA OF THE STOMACH BY MEANS OF CHEMIC ANALYSIS OF THE GASTRIC CONTENTS.** By W. C. Weber, M. D., Visiting Physician to the German Hospital, Cleveland, O. From the *Journal of the American Medical Association*.

**SPONTANEOUS GANGRENE FOLLOWING TYPHOID FEVER.** By L. Harrison Mettler, A. M., M. D., Chicago. From *New York Medical Journal*.

**HEMIPARAPLEGIA; WITH REPORT OF A CASE COMPLETELY RECOVERED AFTER ONE YEAR'S DURATION.** By L. Harrison Mettler, A. M., M. D. From *Journal American Medical Association*.

**HEMORRHOIDS.** By M. Borts, M. D., Cleveland, O. From *The Cleveland Medical Gazette*.

**THE TREATMENT OF TUBERCULOSIS AND OTHER INFECTIOUS DISEASES WITH OXYTOXINES.** By J. O. Hirschfelder, M. D., Professor of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

**A NEW RECTAL SPECULUM.** By Charles Martin, M. D. From *The Cleveland Medical Gazette*.

**A SERIES OF ARTICLES ON SPEECH DEFECTS AS LOCALIZING SYMPTOMS. FROM A STUDY OF SIX CASES OF APHASIA.** By J. T. Eskridge, M.D., Denver, Col. From *The Medical News*.

This is a series of seven articles upon the above subject, written by Dr. Eskridge, Dr. E. J. A. Rogers, Dr. Clayton Parkhill and others, and bound together in this pamphlet.

**THE USE OF CICATRICAL SKIN FLAPS IN THE OPERATION FOR ECTROPION OF THE UPPER LID.** By F. C. Hotz, M. D., Chicago. From *Journal American Medical Association*.

**SUSPENSIO UTERI, with Reference to its Influence upon Pregnancy and Labor.** By Charles P. Noble, M. D., Surgeon-in-Chief Kensington Hospital for Women, Philadelphia. From the *American Journal of Obstetrics*.

**DRAINAGE VERSUS RADICAL OPERATION IN THE TREATMENT OF LARGE PELVIC ABSCESSSES.** By Charles P. Noble, M. D. From *Journal American Medical Association*.

**A NEW OPERATION FOR CERTAIN CASES OF PROCIDENTIA UTERI.** By Charles P. Noble, M. D. From *The American Gynecological and Obstetrical Journal*.

**THE ABUSE OF DIGITALIS.** By W. T. English, A. M., M. D., Pittsburg. From *The Medical and Surgical Reporter*.

**MODERN RESPIRATORY ADVANTAGES.** By W. T. English, A. M., M. D., Professor of Physical Diagnosis in Medical Department of Western University of Pennsylvania, and Consultant in Chest Diseases in the South Side Hospital, Pittsburg. From *Journal American Medical Association*.

**ACUTE SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR; ACUTE SUPPURATIVE MASTOIDITIS; ABSCESS OF THE NECK; OPERATION.** By Seth Scott Bishop, M. D., D. C. T., Chicago. Surgeon to Illinois Charitable Eye and Ear Infirmary; Professor of Otology, Post-Graduate Medical School etc. From *The Laryngoscope*.

**ADENOID VEGETATIONS in the Vault of the Pharynx.** By Seth Scott Bishop, B. S., M. D. From *The New Albany Medical Herald*.

**A CLINICAL STUDY OF TWENTY-ONE THOUSAND CASES OF DISEASES OF THE EAR, NOSE AND THROAT.** By Seth Scott Bishop, B. S., M. D., LL. D. From *Journal American Medical Association*.

**THE DOCTORATE ADDRESS DELIVERED AT THE COMMENCEMENT OF THE ILLINOIS MEDICAL COLLEGE.** By Seth Scott Bishop, M. D., LL. D.

## Notes and Comments.

**A Filter for the Hypodermic Needle.**—Do you use anti-toxin, nuclein solution, or any of those medicaments used hypodermically? If you do, you know the necessity of excluding all foreign matters, such as particles from the packing of the syringe etc. A small pledget of cotton placed in the socket of the needle before it is attached to the barrel of the syringe acts as an efficient filter. It should be renewed each time the syringe is used. F. E. WEEKS.

**Dr. E. B. Smith**, of Detroit, writes: "Enclosed please find a check for a year's subscription to your excellent journal. You are upon the right line. You have a good, clean journal, and I deem it my duty to help such an enterprise along to the best of my ability."

**Dr. Gustav A. Deucher.**—Word has just been received by cable of the sudden death of Dr. Gustav A. Deucher, at Steckborn, Switzerland, about Dec. 15th. Death was due to hemorrhage from gastric ulcer. He had at times suffered from pain in the region of the stomach, but the serious nature of the difficulty was not suspected. He left home Oct. 1st, on a trip abroad for study and recreation. Dr. Deucher was born 33 years ago in Switzerland, but came to this country when 5 years old. He studied medicine at the University of Michigan and at Long Island College Hospital and obtained his medical degree from the latter school in 1886. While continuing his studies abroad he became acquainted with Miss Emma Denner, of Zurich, whom he afterwards married, in 1893, at Stratford, Conn., and who, with two children, survives him. Dr. Deucher came from a family well known in Switzerland, being a nephew of the President of the Swiss Republic. Having little in the way of financial resources at the beginning of his career, he had acquired a flourishing practice and a well recognized position in the profession of this city. He was a member of the Cleveland Medical Society and was on the visiting staff of the German Hospital.

**Dr. Joseph E. Cook**, President of the Cleveland Medical Society, was married on Nov. 19th, to Miss Lillian Elizabeth Heisley. They will reside on Russell avenue. We extend congratulations.

**To Aid the Cubans.**—While many Americans favor interference by the government of the United States in behalf of the struggling patriots of Cuba, there may be some doubt as to the best time and method of interfering, and many objections will be raised. In the meantime the struggle goes on, and there are many wounds and much suffering to appeal to our sympathies, and no objection can be raised against efforts for their relief. No international law or treaty is violated by furnishing medicines and surgical dressings to the insurgents, in the name of humanity. They are sorely in need of such aid. We propose to collect in Cleveland and vicinity whatever may be donated to the Cuban cause by physicians or pharmacists, in the line of medicines, drugs and dressings, or money for purchase of the same, and to forward them to the proper Cuban agents to be sent to the front. Any such articles sent to the office of the *GAZETTE* will be duly accredited and receipted for and promptly forwarded.

**Dr. A. H. Van Cleave** is now located at Silver City, New Mexico, where he has removed from El Paso, Texas.

**Dr. Charles Collins Stuart** and Miss Josephine Hartzell, daughter of Mr. and Mrs. J. S. Hartzell, were married December 9, 1896. Dr. and Mrs. Stuart will live at 436 Jennings avenue.

**The Alvarenga Prize of the College of Physicians of Philadelphia.**—The College of Physicians of Philadelphia announces that the next award of the Alvarenga prize, being the income for one year of the bequest of the late Senor Alvarenga and amounting to about \$180, will be made on July 14, 1897, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the college on or before May 1, 1897.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope, having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the reward.

The Alvarenga prize for 1896 was not awarded.





M. Hamm Esq.



### Original Articles.

#### THE BACILLUS PROTEUS ZENKERI IN AN OVARIAN ABSCESS.

BY HUNTER ROBB, M. D.,

Professor of Gynecology, Western Reserve University, Cleveland, O.,

AND

ALBERT A. GHRISKEY, M. D.,

Former Assistant Gynecologist to the Johns Hopkins Hospital,  
Baltimore, Md.

Mrs. T. G. was admitted to the Gynecological ward of the Johns Hopkins Hospital, August 8th, 1891, with the following history:

The patient was a Bohemian, twenty-six years of age, and had been married seven years. She had had three children and said that she had never miscarried. The oldest child is six and the second four years old; the third child born in January, 1890, died of "summer complaint," at the age of six months. Her labors had been easy; she remained in bed for two days after each, being attended only by a midwife. Her menses first appeared at sixteen years of age. They were irregular, lasting usually seven days, and were often profuse and painful; since marriage her menses have been regular, lasting five or six days, being profuse but not painful. In May, 1890, she ceased to menstruate for two months, but in July her menses reappeared and lasted six days. At this time they were profuse and accompanied with a great deal of backache and pain in both ovarian regions. She had never had leucorrhea; she suffered from

constipation. There was no urinary difficulty. The patient remained well until April, 1891, when a hemorrhage from the vagina occurred suddenly and continued for six days. Two hours after the hemorrhage ceased she passed foul-smelling black clots of blood and experienced labor-like pains. During May, June and July she was free from these labor-like pains, but complained, during these months of weakness, of occasional chills and fever, of pains in the lower zone of the abdomen and backache. On admission to the hospital she was too weak to walk. The slightest touch over the region of the left ovary provoked intense pain. The temperature on admission was normal; the patient weighed 123 pounds.

At the examination made August 8th, 1891, under chloroform narcosis, the following note was made:

Vaginal outlet moderately relaxed; vagina bathed with bloody fluid; cervix small, bilaterally lacerated, pointing upwards; uterus anteфлекed, sagging in the pelvis, enlarged, soft and movable. Right broad ligament thickened. Fallopian tube and ovary not definitely palpated.

On the left side a fluctuating tumor is outlined, about the size of an orange, adherent to the uterus.

*Diagnosis.* Abscess of the left ovary. Treatment advised, celiotomy.

*Urinary Analysis.* A voided specimen examined on August 9th was turbid, straw-colored, specific gravity 1.020, reaction acid. On standing it deposited a heavy bloody and mucous sediment. On boiling albumin was found to be present. A large number of red blood corpuscles were revealed by the microscopical examination as well as numerous epithelial cells both large and small.

A catheterized specimen was cloudy, amber colored, specific gravity 1.025, reaction acid. Albumin as in voided specimen; mucous sediment not so deeply stained with blood. The microscopical examination gave much the same result as those shown by the previous specimen.

*Operation,* August 12th, 1891, under chloroform narcosis. Incision 7 cm. long through thin abdominal walls. On exploration of the pelvis the mass previously palpated on the left side was brought into view. It was bound down to the broad ligament, uterus and pelvic walls by dense connective tissue adhesions. The tumor mass was successfully

enucleated, but during its delivery a small rupture occurred at the point at which it was adherent to the fimbriated extremity of the Fallopian tube, and a small quantity of purulent fluid, having a strong fetid odor, escaped. A ligature was immediately tied about the rent, thus preventing the escape of more fluid. The remaining portion of the Fallopian tube, although not adherent, was enlarged and thickened. The tumor mass was transfixed and ligated below the round ligament, after which it was excised and the pedicle cauterized.

The Fallopian tube and ovary of the right side being bound down by only a few adhesions were enucleated without difficulty. The fimbriated extremity of the tube was occluded, enlarged and thickened. The ovary appeared inflamed, but was not enlarged. The tube and ovary were removed by transfixion, and the pedicle was cauterized. The pelvic cavity was irrigated with three liters of a sterilized salt solution at a temperature of 112° F. and sponged dry.

A drainage tube was inserted in the lower angle of the wound, and the usual dressings applied. Time of operation forty minutes.

The specimens removed consist of the tube and ovary of the right side which are covered with villamentous adhesions, and the tube and ovary of the left side which are encapsuled in connective tissue-like adhesions.

VIII-13-91. First dressing. The gauze plug in the drainage tube is thoroughly saturated with a dark bloody discharge, and streaked with a fluid resembling pus. Tube cleansed with twenty pledgets of cotton, the three last pledgets being but faintly stained. The discharge had a decided odor of decomposition. The cotton immediately over the drainage tube was slightly moistened with the same character of secretion as that seen upon the plug and upon the cotton pledgets. Abdomen flat, no distension, general condition good, usual cultures taken.

VIII-14-91. Second dressing. Slight amount of fluid on cotton over the drainage tube; plug in tube moistened by a clear fluid, holding a clot of blood at the lower end. On the gauze plug, there are white opaque points of lymph, corresponding in position to the perforations in the drainage tube. The fluid has the same odor of decomposition. Tube



cleansed with twelve pledgets of cotton, which when withdrawn were stained with a serum-like fluid, the two last being hardly soiled at all. Drainage tube removed and a plug of iodoformized gauze inserted down the track of the tube. Abdomen flat, general condition good; usual cultures taken.

VIII-15-91. Third dressing. Gauze removed from the tube track; moistened, not as much odor. Track of tube cleansed with peroxide of hydrogen. Abdomen flat, general condition good. Gauze reapplied to wound, but not down the track; abdomen sensitive. Gauze impregnated with permanganate of potassium and oxalic acid applied over the protective dressing and track of the tube.

VIII-19-91. Fourth dressing. Stitches removed. Line of union good; some suppuration about the track of the tube. General condition good.

VIII-26-91. Fifth dressing. Small amount of creamy fluid escaped from the track of the tube. Line of incision in good apposition and well united.

*Analysis of Temperature Chart.* The temperature was taken for ten days after the operation by the mouth, rectum and vagina. The highest point registered was that on the fourth day when it was 102° F. by the rectum, 101.8° F. by the vagina, and 101.2° F. by the mouth. After this it was never above 101° F. and on the 9th day registered 100.5° F.

*Bacteriologic Examination.* The following cultures were made from the left Fallopian tube and abscess cavity: Two sets of Esmarch's roll plates on agar-agar, one smear and one stab culture in the same medium; a blood-serum tube (bullock's blood) and a litmus milk tube. From the right Fallopian tube which was distended by a muco-purulent rather viscid looking fluid, we only made gelatine Esmarch's roll plates.

*Microscopic Examination.* Cover-slips stained with gentian violet show numerous polynuclear leucocytes, with compound granular bodies, and a few cells with large round nuclei resembling epithelial cells. Many bacilli were observed; they were rather faintly stained, and were seen only occasionally within the leucocytes. These bacteria were stained best with carbolic gentian-violet.

Numerous rod-shaped bacilli were found in the preparation from the Fallopian tube on the right side. Though less intensely stained, they morphologically somewhat re-

semble tubercle bacilli. They are, however, completely decolorized when treated after the method of staining for the latter organisms. It is to be noted that the organisms were very numerous in the specimen from the point at which the cultures were made.

After forty-eight hours in the thermostat all tubes were sterile, except the blood serum slants, which showed an opaque, very faintly granular growth, apparently due to closely set colonies. Only the growths from the two inoculations from the abscess contents were considered reliable for study. Inoculations were made from these on the agar-agar, blood serum, potato and gelatine. Examined microscopically they proved to be pure cultures of a bacillus.

All these tubes showed growth after twenty-four hours on agar; very faintly after forty-eight hours on gelatine on account of the lower temperature, but more distinctly on the latter on succeeding days. The appearance of the colonies in gelatine corresponded to that presented by the bacillus proteus, a fact suggested by Dr. Booker and confirmed by Dr. Welch. These colonies showed the typical twisted wandering offshoots (*schwärmende Colonien*) characteristic of the proteus group. The gelatine was not liquefied.

*Cultures from the Drainage-Tube.* First dressing twenty-four hours after operation. Roll plate, agar-agar, Esmarch's tubes. The colonies on the tubes from the gauze plug were composed of the skin-coccus. Microscopic examination of stained cover-glass preparations from the secretion showed a few diplococci, and numerous bacilli identical with those found in the abscess cavity. The coccus grew on potato and in bouillon with the characters of the streptococcus pyogenes albus, but liquefied gelatine, though less rapidly than this organism.

The inoculation of a guinea-pig subcutaneously in the flank with the serum-like secretion from the gauze plug was without result.

Further inoculations from the drainage tube on bullock serum were not made, as the supply of culture medium was exhausted.

The case is of unusual interest on account of the results of the bacteriologic examination. The bacillus proteus vulgaris (variety Zenkeri) was found in cultures from the

abscess cavity in the left ovary and on coverslips in the right Fallopian tube. In all our previous examinations of abscess cavities, cysts and Fallopian tubes, we have never met with another instance in which it was present.

MACROSCOPIC AND MICROSCOPIC DESCRIPTION OF SPECIMENS.\*

*Appendages from both sides.* Left Side: Tube 6 by 0.7 by 1 cm. Fimbriated end thickened and adherent to ovary, but not occluded; some portions are still bound down to the ovary, but at other places the adhesions have evidently been torn loose during the operation. On section it is seen that the mucosa is much thickened and resembles a pyogenic membrane. The characteristic folding has disappeared. Scattered through it here and there are areas, which appear decidedly caseous.

The ovary is converted into a pus sac 5.5 cm. in diameter. The greater part of its exterior is smooth, though signs of several dense adhesions are observed. On the surface are a few dilated follicles. The abscess wall varies from 0.5 to 1 cm. in thickness, its interior being lined by a characteristic pyogenic membrane 2 to 3 mm. thick. Externally it is glistening and presents many circular elevations, 1 to 5 mm. in diameter, which are raised only a few mm. above the general surface. These are found to be movable and to represent tags of tissue. On section, the pyogenic membrane is readily divided into two layers; the one nearer to the pus cavity, being opaque, thicker, of a yellow color and having a tuberculous aspect (?); the other, lying next the ovarian stroma, is lighter in color, more translucent, and considerably thinner than the inner coating.

Coverslips from the pus show many thick bacilli, but no tubercle bacilli.

Right Side: Tube 5 by 0.4 by 1.2 cm; fimbriated end occluded; many adhesions. Ovary 3 by 3 by 1.5 cm. Many adhesions on surface. On section, the ovary is succulent and contains an oldish corpus luteum and a small corpus luteum cyst, 5 mm. in diameter, with white opaque walls 1 mm. thick and with a glistening interior. There are also several follicles with hemorrhagic contents.

*Microscopic Examination.* The left tube presents a marked purulent salpingitis, the folds of its mucosa being infiltrated with leucocytes and round cells. In places the epithelium is swollen and breaking down, and in others has entirely disappeared, affording a picture which beautifully

\*From the Pathological Laboratory of the Johns Hopkins Hospital, by Dr. J. Whitridge Williams.

illustrates the liquefaction of tissue. There is also a marked endarteritis.

Sections through the wall of the ovarian abscess, show that the portion adjacent to the cavity contains many newly formed blood vessels; it is filled with leucocytes and most beautiful fibroblasts which are rapidly proliferating, nuclear figures and cell division being well seen.

In this portion the connective tissue bands are hardly visible. As we recede from the abscess cavity we find fewer leucocytes, more fibroblasts and connective tissue, until we gradually approach characteristic ovarian tissue.

The bacillus corresponds morphologically to the bacillus proteus Zenkeri, and stains well with methylene blue and does not entirely decolorize with the Gramm or Weigert stain. It may be observed in the abscess walls as a bacillus of varying length and in forms simulating cocci. The fibroblasts are strikingly like the large cells of the corpus luteum.

In a contribution to the subject of the proteus vulgaris in abscesses, Hauser, (1) besides the report of his own case, gives a resume of the instances previously reported by other writers. Hauser's case is that of an adult who had a series of abscesses in the hand, following an injury from one of the autopsy instruments. The pus, which was of an ichorous and stinking character, contained both the streptococcus and the proteus. The suppuration was regarded as induced by the streptococci and the peculiar character of the contents of the abscesses was attributed to the presence of the proteus.

Beck (2) reports several cases of puerperal endometritis in which the proteus vulgaris was found and one case of purulent peritonitis, following total extirpation of the uterus for carcinoma, in which the presence of the same organism was demonstrated.

Finally Döderlein (3) reports that in the lochia of puerperal women he has often found bacilli which cause a rapid liquefaction of gelatine. But from his brief description one is not able to say whether or not he was dealing with the proteus.

It seems fair to assume that our patient had a puerperal endometritis following the abortion which occurred last April and that the infection subsequently involved the Fallopian tube and ovary.

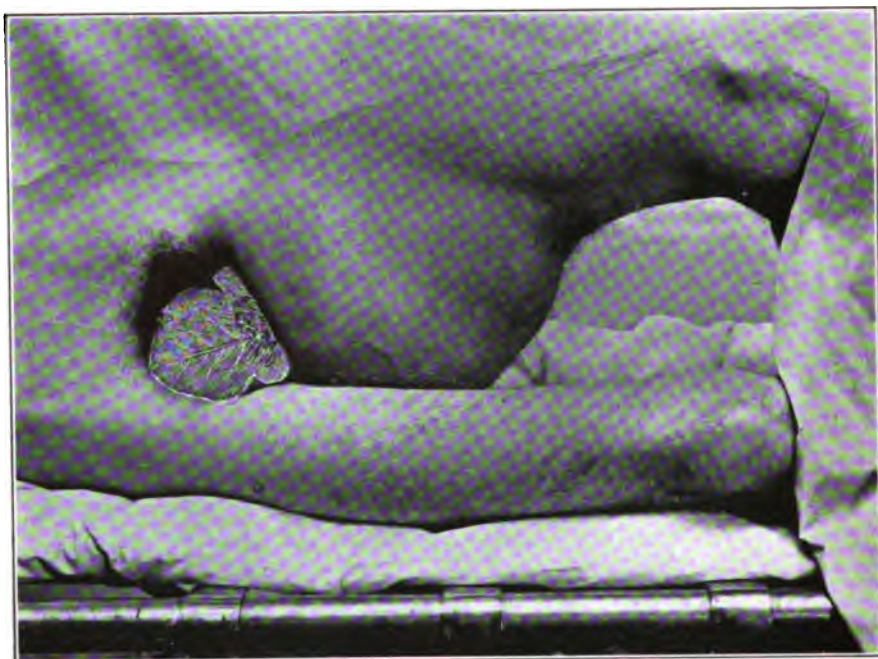
The proteus Zenkeri, which he classifies among the anaerobes of putrefaction, is described by Hauser (4) as fol-

lows: The organisms  $0.4\mu$  in breadth, and of an average length of  $1.65\mu$ ; in some instances the forms are rounder, at other times longer. After inoculation on gelatine, a layer, which towards the periphery becomes thinner and has the appearance of the steps of stairs, is formed around the point of inoculation, and from the margin of this layer numerous threads and rods begin to pass out. After twenty-four hours we find large numbers of moving islands, composed of rods and threads presenting exactly the same appearance as in the case of *proteus mirabilis*. The deposit becomes gradually thicker and opaque; but no liquefaction of the gelatine occurs except sometimes quite at the surface. The formation of spirilla is seldom observed. Cultures in gelatine and blood serum do not show any marked odor; meat infusion, on the other hand, is decomposed by the organism with the production of a strong smell. In its other effects, the *proteus Zenkeri* resembles the *proteus mirabilis* and the *proteus vulgaris*, and as Hauser (1) has pointed out there is probably only one species of *proteus*, the *vulgaris*, of which the other forms are to be regarded as simple physiological variations.

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- (2) Beck: Die Fäulnisbakterien der menschlichen Leiche. Baumgarten: Arbeiten auf dem Gebiete der Pathologischen Anatomie und Bacteriologie aus dem pathologisch-anatomischen Institut zu Tübingen. Bd. 1, S. 155, 1889.
- (3) Döderlein: Untersuchung über das Vorkommen von Spaltpilzen in den Lochien etc. *Archiv f. Gynäkologie*, 1887, Bd. 31, S. 439.
- (4) Flügge: Die Microorganismen, 1886, p. 310.





At time of Operation.



On 17th day after Operation.

**Dr. C. B. Parker's Case of Sarcoma of the Thigh.**

## AMPUTATION AT THE HIP-JOINT FOR MYXO-CYSTO SARCOMA OF THE THIGH; RECOVERY FROM OPERATION.

BY CHARLES B. PARKER, M. D., M. R. C. S., ENG.

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Cases requiring amputation at the hip-joint are of sufficient rarity to merit a careful report. The difficulty of providing for the control of the hemorrhage during the operation, owing to the tumor encroaching upon the plane of the amputation, and the simple and efficient means successfully employed to overcome it, give added interest to the case.

One point in the history is worthy of special mention. Although the tumor had been growing for two years, the patient had successfully concealed the fact from his parents and brothers, and companions as well, and had engaged in a game of baseball within a few weeks of his entrance into the hospital.

L. H. T. was born in Ohio, is twenty-six years old, married, and a farmer by occupation. His family history is good. His parents, brothers and sisters are living and in good health. No tumors or growths have developed in any member of his immediate family or in any of his blood relatives, so far as he knows.

His previous health has been good. Although he is tall and spare and does not appear robust, he has led a very active outdoor life and taken a prominent part in athletic sports. About two years ago he first noticed upon the upper and inner side of his left thigh a small painless lump. He could assign no cause for its appearance; was quite positive he had not injured himself in any way in that part, and we took particular pains to go over this question carefully with him before the operation and afterwards during his convalescence. At first the growth of the tumor was slow, but uninterrupted, and only during the last few months has the growth been noticeably rapid. At first there was no pain. At present there is considerable, associated with a painful and dragging sensation. He is losing flesh rapidly, although his appetite is good.

Upon inspection a large tumor was found occupying



the inner and upper portions of the left thigh, extending from near the groin downwards ten inches. The tumor was nodular, elastic and semi-fluctuating at several points. The skin was adherent, stretched, thinned, dusky red and shining, numerous blue veins showing through the modified skin over the most prominent portions of the tumor. There was no enlargement of the lymphatics, about the saphenous opening, nor of those above and parallel to Poupart's ligament. No enlargement could be detected in the abdominal cavity or other part of the body. Respiration was 22, pulse 90 and temperature 99.1° F.

The method of operation was by disarticulation through an external racket incision. This case was particularly adapted to the external incision, as the great mass of the tumor was upon the front and inner aspect of the thigh. By this method Ravaton and Kerr performed the first amputations at the hip-joint. Subsequently modifications and variations have been made by prominent surgeons, notably Furneaux Jordan, Malgaigne, Cormeau, Scutteten, Lister, Esmarch and others, and the modified operation in most instances is known by the name of the surgeon who first suggested it. Control of the hemorrhage during the operation, always a most important problem in amputations at this point, was particularly difficult in this case. In its growth the tumor had so encroached upon the groin and inner side of the thigh, that it was evident at once that the use, either of the two steel pins as suggested by Wyeth, or of the single pin as previously proposed by Trendelenburg, was out of the question, as the pins would necessarily pass through the tumor mass or the infiltrated tissues. The limb having been elevated for a few moments and as much blood as possible pressed out by drawing the hand over the course of the main vessels, an elastic Esmarch tourniquet was placed about it, passing upon the inner side just above the tuberosity of the ischium and upon the outer side just above the crest of the ilium. Thus placed, there was no possibility of its slipping at any step of the amputation. A sterilized surgical towel, closely folded, was placed in the groove over the external iliac artery beneath the elastic tourniquet, which was now passed three times round the limb to render it the more secure.

The knife was introduced 2½ inches above the great

trochanter in an imaginary line extending from the middle of the great trochanter to the posterior superior spine of the ilium and carried down to the trochanter and along the shafts of the former for a total distance of seven inches. With a long amputating knife a circular incision of the thigh was made at the level of the lowest point of the straight incision, but only cutting through the skin and superficial fascia, which were then dissected up for two inches. At this point the sartorius muscle was drawn aside, the sheath of the femoral vessels opened and a ligature applied to the femoral artery. The vertical incision was next cleaned down to the bone. The assistant adducted, rotated and flexed the limb so as to aid in bringing the attachments of the muscles upon first the greater and then the lesser trochanter into view, when they were severed, together with the quadratus femoris, pectineus, upper adductors and portions of the triceps femoris.

To disarticulate the head of the femur was the next step. The capsule was divided by a transverse incision, the limb depressed and forcibly rotated outward and the round ligament severed, when the head of the bone left its socket with a peculiar sucking sound. Ordinarily, in the next step a large amputating knife is placed on the inner side of the bone, and with one strong sweep from within outwards the muscles and tissues divided; in this case, however, it was necessary to cut in the opposite direction—from without inward—to avoid leaving any portion of the tumor in the flaps.

There was a minimum amount of hemorrhage from branches of the profunda femoris and some few muscular branches, but the total amount of blood lost was very little for so large a wound. The position of the mass and the still further infiltration of the muscles compelled me to make my flaps rather short, and there was considerable tension upon the flaps. This was taken off from the marginal sutures by the insertion of two "button sutures." Free drainage was secured by means of iodoform gauze and a voluminous antiseptic dressing applied with a short back splint to support the stump and give firmness to the bandages. The outer dressings were changed on the second day and the first complete dressing with removal of drainage made on the seventh day and then every third or fourth day thereafter. The wound healed rapidly, as the photo-

graph taken upon the seventeenth day after the operation shows. The patient left the hospital at end of the third week.

Some of the advantages of the external racket incision in amputations at the hip-joint might be summarized as follows:

1. The hemorrhage can be completely controlled by the Esmarch elastic ligation, and if placed as suggested in this article it can never slip.

2. The vertical incision is made in the least vascular area, and the circular is placed so low that the gluteal and sciatic vessels are not divided.

3. The plane of division of the limb may be placed lower than by any other method of amputation, and thus the shock may be very much diminished.

4. The future artificial limb is to rest principally upon the tuber ischii, and the scar is farthest removed from this point and from the anus.

5. In certain cases, especially of severe or chronic hip disease, the condition can be explored through the vertical incision, and if too extensive to be relieved by resection or curetting, the incisions can be extended and the amputation carried out.

6. It is the best form of incision where it is desired to make the operation subperiosteally.

7. By this method of amputation, the flattening of the hip and consequent deformity are less.

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## REPORT OF A CASE ILLUSTRATING THE VALUE OF SECONDARY PHYSICAL SIGNS IN THE DIAGNOSIS OF VALVULAR HEART DISEASE.\*

BY ROBERT H. BABCOCK, A. M., M. D.

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In my lectures on valvular diseases of the heart I have always dwelt with particular emphasis upon certain principles connected with the detection of and value to be placed

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upon murmurs. First, murmurs are the least reliable signs of valvular disease ; second, and this is the corollary of the first, without the recognition of the so-called secondary signs of valvular disease, an accurate diagnosis cannot be made. The former proposition is true because the very existence of endocardial murmurs, as well as their location, character and intensity, depends not alone upon the conditions residing in the affected orifices and valves. To explain—an endocardial bruit is but the audible expression of currents created within the main current or blood stream. Therefore, if the heart's contractions be too feeble to throw the languidly flowing stream of blood into soniferous vibrations, a murmur may be too weak to be heard, or a defect of greatest gravity may be attended by a soft innocent sounding bruit. This has been illustrated within the past year or two by at least one case reported before the Medical Society of Berlin, of insufficiency of the aortic valves, substantiated by necropsy, yet without the detection of the characteristic murmur *intra vitam*. On the other hand, given a powerful left ventricle and a comparatively insignificant retraction of one of the mitral cusps, or a trifling narrowing of the aortic orifice, a mitral or aortic systolic murmur of startling intensity may be produced, and yet the actual amount of damage be too small to create symptoms. Furthermore, an endocardial murmur may be so propagated along the chest walls or myocardium as to be heard with equal distinctness, nay, perhaps greater intensity, over another area than that in which the bruit is generated. It is evident, therefore, that under such conditions the determination of the secondary signs of valvular disease is essential to the just appreciation of the importance to be attached to a murmur.

It is not uncommon to detect two murmurs in the same case, the location and rhythm of which indicate the coexistence of two lesions situated at different orifices. In such an event not only the prognosis, but the treatment, may depend upon the decision as to which lesion is the graver. The answer to this question then depends upon the secondary signs.

Right here let me explain to those readers who do not quite understand this expression, what is meant by these secondary signs. When the normal flow of blood through

the heart is interfered with by stenosis of the orifice, or regurgitation through the valves, the portion of the viscus situated back of the seat of lesion becomes enlarged by hypertrophy or dilatation or both, and the area of cardiac dullness becomes increased in that direction. Moreover, the cardiac impulse is modified, leading to alteration in the situation and character of the apex beat, or to a pulsation in an abnormal area, as for instance, in the scrobiculus cordis in cases of enlarged right ventricle due to mitral disease. Again, the resulting interference with the circulation modifies the pulse in rate, character, rhythm, or all, and leads to congestion in the veins and internal organs, as the lungs, liver, spleen and kidneys. Therefore, whenever a cardiac murmur is heard, one should search for these evidences of disturbed circulation, since they alone indicate the extent of the mischief. To exemplify the truth of these remarks, let me narrate the following case.

CASE I.—June 25, 1896, a man presented himself at my office with a letter from one of our city physicians stating that the bearer had an interesting cardiac lesion which had been the subject of considerable controversy, and that he was sent to me in the hope of my being able to clear up the diagnosis. A perusal of numerous letters from medical men in Chicago and various other cities disclosed an amusing variety of opinions. As my examination subsequently showed, the diversity in the diagnoses was due to the dependence placed upon cardiac murmurs without a just appreciation of the secondary physical signs. The patient, a Polish Jew, aged 29, gave a history of four years spent as a political exile in the mines of Siberia, from which he escaped two years and nine months ago. In January, 1894, he suffered from an attack of inflammatory rheumatism, from which his present cardiac disease probably dates. His chief symptom was dyspnea on exertion, as walking up stairs. Appetite and digestion were reported good and the bowels regular, urine not examined.

*Inspection.*—Marked turgescence of peripheral veins and capillaries; heaving cardiac impulse at left of sternum; slight epigastric pulsation; apex beat in fifth interspace,  $3\frac{1}{4}$  inches to left of left sternal border.

*Palpation.*—Apex beat heaving or thrusting; pulse seventy-five, regular, collapsing; capillary pulse.

*Percussion.*—Cardiac dullness, absolute, began at third

left intercostal space and reached from the right sternal border to the left nipple; relative, at level of second left intercostal space, reached one and one-half inches to right of sternum and three and one-half inches to left of sternum, and downward to the upper margin of the sixth rib at the left para-sternal line; at the level of the fourth space it extended transversely from one and one-half inches to the right of the sternum to three and one-half inches to the left of that bone; the lower line of deep seated cardiac dullness ran downward from the lower border of the fifth right costosternal articulation to the upper border of the sixth left rib at the apex beat. The outline was, therefore, equally as broad through the auricles as through the ventricles, while the apex of the left ventricle reached only the width of one intercostal space lower than did the base of the right ventricle. Hepatic dullness in the erect position reached from the fifth rib, right mammillary line, to an inch or more below the costal arch.

*Auscultation*:—Erect position; first sound at apex of low pitch, the second weak and at times split; first sound in aortic area muffled, the second delayed and impure. Pulmonary second sound accented. Murmurs,—a musical systolic murmur, loudest over lower portion of sternum and to left, but audible from near right nipple to middle of left axillary region and up to first space, here feeble and not transmitted into neck; in aortic area, a faint systolic and diastolic murmur wholly different in character from the musical one just described. In dorsal decubitus, the musical murmur as before, but in addition, a low-pitched systolic murmur in mitral area and aortic area, and heard distinctly in the cervical vessels, also a faint, short diastolic murmur following the aortic second sound and audible more feebly at the apex. A systolic tone was also heard in the femoral arteries. The sphygmographic tracing was characteristic of aortic insufficiency.

*Diagnosis*:—Chronic endocarditis affecting the mitral and aortic valves and leading to aortic and mitral insufficiency; secondary hypertrophy and dilatation of both left and right auricles and ventricles; passive visceral congestion; compensation good.

If in this instance one were to depend on auscultation chiefly, error would be almost inevitable, as indeed was shown by some of the letters presented by the patient.

The double aortic murmur was quite characteristic and hardly required the Corrigan pulse, capillary pulsation, systolic femoral tone and enlarged left ventricle to establish the diagnosis of aortic insufficiency. The rock on which some split, however, was the musical murmur, which being systolic in time and of maximum intensity at and about the ensiform appendix, led them to diagnosticate tricuspid regurgitation. In the light of the secondary physical signs this is plainly an error. The only physical sign pathognomonic of regurgitation through the tricuspid valves is the systolic venous pulse, which for obvious reasons is most plainly detected in the external jugulars. In some instances there is also systolic venous pulsation of the liver. Such systolic jugular pulsation is diagnostic of tricuspid insufficiency even if a murmur is inaudible, whereas a systolic murmur heard most distinctly in the tricuspid area may be, as in the present case, mitral in origin and for some unknown reason be transmitted with unusual intensity to the lower end of the sternum, or manifest a phenomenally large area of propagation. It is not unlikely that in the case reported the musical murmur is caused by a vegetation swinging back and forth in the blood stream, and that the maximum audibility of these vibrations in the tricuspid rather than the mitral area, depends on a conjunction of unusual conditions. It may be conjectured that the location of the vegetation is such that the vibrations are transmitted along the interventricular septum and the walls of both ventricles and thus furnish an unusually wide area of propagation. It is conceivable also that the abnormal blood pressure within the left ventricle has caused a deviation or bulging of the interventricular septum into the cavity of the right ventricle in such a manner that the stream of blood thrown into soniferous vibrations by the swinging vegetation swirls or eddies along the hollowing septum and thus sends its sound producing waves toward the apex of the right rather than the left ventricle. But whatever be the explanation of its conduction into the tricuspid area, the murmur belongs to the mitral valves as shown by the accentuation of the pulmonic second sound, the enlargement of the right ventricle, and passive engorgement of the abdominal viscera and general venous system, phenomena that play no part in the symptom-complex of compensated aortic insufficiency.

## HOW LONG IS SYPHILIS CONTAGIOUS ?\*

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If an apology be needed for having brought this subject into discussion, it may serve to state that much of the health and happiness of mankind depends upon its correct answering, and we as physicians are properly looked to for such answer.

If you will allow us to assume syphilis to be of germ origin, we will positively assert that, like all things earthly, it must have an end, but with equal positiveness do we assert, that until its germ is found and recognized, it must remain an open question in individual cases. Fortunately, however, enough is known from long experience and observation to reckon approximately, and that will be the purpose and object of this paper.

We may state, without fear of successful contradiction, that there are no well authenticated cases on record of syphilis occurring in the second generation as a result of heredity. We again state that there are no cases on record where vaccino-syphilis has been transmitted from children over eight months of age ; hence, no matter what condition may confront us in acquired syphilis, it is almost certain that in hereditary syphilis its power of transmission is lost by the end of the first year of infection.

The question as to acquired syphilis is one which is far more perplexing in its entirety. The majority of authors with whose teachings we are familiar, hold that from three to five years are required before the contagiousness of syphilis is at an end, but state that in exceptional cases it has been found to remain over a period ranging from six to twenty years. Such cases undoubtedly occur, but they must be rare indeed.

Mr. Jonathan Hutchinson, before the third International Congress of Dermatology, London, made the bold statement that syphilis had generally lost its contagiousness at the end of the first year of infection ; he further stated that

\* Read before the Tri-State Medical Society at Memphis, Tenn., at its 18th Annual Meeting, Nov. 17-18, '96.



he always allowed his patients to marry at the end of the second year, and in but two instances had the children shown any signs of syphilis as a result of such marriages.

We do not desire to question the statement of so great and good a man as Mr. Hutchinson, yet at the same time we beg leave to criticise and state that such advice is not without danger and could hardly be called conservative. We now call to mind four different cases wherein syphilis had been disseminated at two, three, five and one-half, and seven years respectively, after the initial lesion had occurred.

We would state that, in the case where syphilis was contracted five and one-half years after the initial lesion, three men were the victims; when the woman who had been the disseminator of the disease came under our observation, there was situated just at the left of the meatus urinarius an ulcer the size of a silver dime; she also was the unfortunate possessor of numerous scars pretty well scattered over her entire body, in sizes ranging from that of a split pea to that of a silver dollar and larger, some of them being slightly discolored, but the majority pale and shining in appearance. She assured us that her disease had been terrible to the extreme, and that the scars we saw had been there for a period of three years, and from their appearance we do not doubt her word.

We know that in this instance it may be charged that this was a case of re-infection, but those cases are rare. Besides, her general health being apparently good, she was treated locally and for reasons which we need not state was given no constitutional treatment whatever, and the lesions healed in about two weeks. We have observed her for about four years since that time, and she has given no manifestations of syphilitic disease.

The so-called gumma or tertiary period is usually considered to carry no infection, but from what we have just related, we hardly think that we would care to make the experiment upon our own person. We will further state that the first, second and fourth cases mentioned were all cases of hereditary syphilis transmitted through marriage. The case of infection at the seventh year is a peculiarly interesting one. The father had acquired syphilis seven years prior to marriage with a perfectly healthy young woman. As a result of this marriage a child was born one year after-

wards, manifesting all the symptoms of hereditary syphilis; At the age of three years this child became hemiplegic, from which condition she has never recovered. The second child, born two years later, was healthy and has remained so. Two abortions occurred after the second child was born, but at the end of three years another child was born with a distinct syphilitic rash, snuffles, mucous patches etc.

Six weeks after the birth of this last child, the mother, having previously remained apparently perfectly well all these years, developed a most beautiful macular eruption all over the body, with enlarged glands, sore throat etc., which case seemingly proved an exception to the well known Colles' law.

In conclusion, we would like to assert dogmatically that treatment does remove, not only the manifestations of this disease, but the disease itself and with it its contagiousness, some eminent authorities to the contrary notwithstanding.

We believe that syphilis loses its virulence as time progresses and that by the end of the sixth year it has practically lost its contagiousness, with here and there a single exception.

We further believe that, where patients have been well treated, they may marry in three or four years after the primary lesion has occurred.

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## A NEW METHOD OF TREATING THE ROUND LIGAMENTS IN ALEXANDER'S OPERATION, WITH BUT SLIGHT DISTURBANCE OF THEIR ANATOMICAL RELATIONS.

BY J. FRANK, M. D.,

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An incision an inch or an inch and a half in length is made midway between the anterior superior spine of the ileum and the spine of the pubes, a trifle above Poupart's ligament, down to the fascia; this is incised for the distance of half an inch in the direction of the fibres. The transversalis muscle, which now presents itself, is pushed back from Poupart's ligament, and a blunt hook, the size of an

ordinary button hook, is introduced into the preperitoneal fat and the ligament hooked out. As a rule, this can be accomplished at the first attempt, provided the incision is made in the proper place. The ligament being found, it is loosened and made to run until the uterus is brought to a satisfactory position. In freeing and stripping the round ligament from its surroundings, one may accidentally open the peritoneal cavity. This signifies nothing, as more often it becomes necessary to open the peritoneal cavity in order to free the round ligament sufficiently for the uterus to be properly brought up to the desired slightly anteverted position.

As soon as this position is obtained, the peritoneal cavity is again closed in the following manner:—the loosened ligament is held up, the two peritoneal flaps are sought out and forceps applied to them. The first suture is taken as low as possible through one flap of the peritoneum, then through the round ligament itself and finally through the remaining flap of the peritoneum. By tying this suture it will be observed that the peritoneum closely hugs the round ligament, the remaining rent being closed by an ordinary suture. Rarely does it require more than three sutures to close the peritoneal cavity securely, but of course the number required depends entirely upon the size of the opening into the cavity.

The round ligament is held up with the hook or forceps until it becomes taut, when the opposing surfaces of the ligament are brought together with an interrupted or running suture. Instead of drawing the ligament through the fascia as formerly practiced, it is merely replaced in its anatomical position beneath the transversalis muscle and the base of the loop of the sutured and shortened ligament is fastened to the above-named muscle by means of one suture.

The idea of trying this method was to obviate if possible the sloughing of the ligament, which is at times apt to occur when the ligaments are treated as was formerly customary, *i. e.*, by drawing them beneath the fascia,—and also to have the cords replaced as nearly as possible in their original anatomical position.

Although two cases form but a meager basis for a report, I am convinced from the vast experience that I have

had in the past eight years in dealing with the round ligament, that with a little more attention to the technique of the operation it will supersede all others on account of its greater simplicity and yielding better results.

Juniperized cat-gut was used in one case and kangaroo tendon, as prepared by Marcy of Boston, in the other. From the observation of the healing process in the two cases, I determined never again to try anything but the kangaroo tendon.

CASE I.—Miss S., aged 22, related the usual symptoms incidental to a retroverted uterus. The uterus in this case could easily be replaced with the finger or the uterine sound, but upon the withdrawal of either it immediately resumed its abnormal position.

The patient was treated for two months with tampons and pessary, but to no purpose, as the uterus would fall over the pessary. An operation was advised, and the patient giving her consent, she was operated upon June 15, 1895, in the manner which has been described. The left wound was packed with iodoform gauze on account of oozing, and became undermined with pus, suppuration going on beneath the fascia. Four weeks from the day of operation both sides were entirely united. The uterus, supported by a pessary, remained in a slightly anteverted position. After two months the pessary was removed and the patient instructed to return in one month. Upon examination it was found that the uterus was still up and the patient entirely relieved.

CASE II.—Miss G., age 27. Retroverted uterus, enlarged and prolapsed ovaries. Various pessaries were tried with this case, but were of no avail. They would hold the uterus up temporarily, but upon the patient's next visit to the office the uterus would be found retroverted again.

She was operated upon October 15, 1895. On the sixth day after the operation the uterus was found retroverted, a pessary was inserted, and it then and thereafter maintained its corrected position. Kangaroo tendon (Marcy) was used for everything. No drainage was employed. The right side healed primarily. Upon the left side there developed a small abscess, probably from some unchecked oozing. It was opened and drained, and two weeks after the date of operation closed itself by granulations.

The patient, who before the operation was a constant sufferer, was in my office the latter part of last month and informed me that she felt well. The uterus stood upright and the ovaries were much smaller.

In conclusion, I would state that in all these cases a pessary should be fitted in before the operation and should be worn as long as is deemed necessary.

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### HYPNOTISM.\*

BY DR. H. J. HERRICK, CLEVELAND,

Professor Emeritus of State Medicine and Hygiene, Western Reserve University.

MR. CHAIRMAN AND GENTLEMEN:

I have some time since become conscious of the fact that our Executive Committee, in assigning to me the subject of "Hypnotism," has, perhaps unwittingly, directed me to survey a somewhat misty field. I shall be satisfied if I am able to enlist the thought of this critical body and bring some of the facts, so far as they are facts, to the approval of our individual consciousness. For we must be assured that the thought or mind of another can not be examined objectively until it has become manifested by acts appreciable by the senses. Hence, human opinion must stand the inspection subjectively by comparison with our own consciousness.

Hypnotism would seem to be allied to sleep (as to the conditions of the brain and nervous system.) *Hypnos* is the Greek word for sleep. It corresponds to the Latin *somnus*. It is a condition with which all are familiar, though during that state normally there is absolute unconsciousness. In sleep there is an entire suspension of the voluntary exercises of the mental and corporeal powers. There is a partial repose temporarily of the organs of sense, the intellectual faculties, and all volition. Browne says: "Sleep is death's younger brother, and so like him that I never dare trust him without committing myself to my Maker."

Hypnotism, etymologically speaking, signifies a treatise or theory of sleep, but the term has come to be applied to certain abnormal phases of sleep, termed also neuro-hypnot-

\* Read before the Sociological Society of Cleveland, Ohio, November, 1896.

ism. Dana groups hypnotism as one of the disorders of sleep. It is always safe and usually wise to take one's bearing regarding an obscure disease or abnormal process, by considering the normal part, structure, or function. Hypnotism being a disordered or abnormal form of sleep, we may inquire something of sleep itself. Normal sleep is not the function of any organ, but rather a condition induced by conservative demand from all the organs of the body, for rest. It is, therefore, one of the normal physiological conditions of the whole organism. *In it there is an unconditional surrender of consciousness and will.* Nutritive activity goes on throughout the body, by which there is a removal of the worn out material and appropriation of new for the replacement of the old, also a furnishing of added material for increased powers required for use or for greater development.

The cause of sleep has been based upon various theories. By some it is said to reside in the nervous tissue itself, which acts in obedience to a rythmical law of rest and activity. Another theory is that it is due to an exhaustion of force in the cortical cells of the brain. Again, it has been attributed to the benumbing influence of waste products in the blood. M. Duval maintained that the nerve cells drew in their processes during sleep as some flowers do their petals. Runion Y. Cajal, a distinguished neuro-anatomist, in a recent article maintains that the neuroglia cells have very fine hair-like processes, some of which are endowed with amoeboid movements, so that they contract during work and extend during sleep.

This, and other views may be regarded only as hypotheses not sustained by proof. Again, others maintain that "sleep centres" are in some parts of the nervous system. This hypothesis is said to be supported by many facts gathered from symptoms of disease; when consciousness is inhibited, the will suspended, the mind is drawn into a somnolent state.

Sleep subserves the requirement of the whole body. It is a function not traceable to the brain alone, hence we can speak of the disorders of sleep, not its diseases. In sleep there is,

First, subsidence of cerebral function;

Second, continuance of ganglionic or involuntary force;

Third, anemia of the brain, blood is diminished in volume and its pressure lessened. Similar physical conditions are observed in hypnotism.

The term hypnotism is applied to a state of mind artificially produced by another, in which the person is apparently asleep to himself, yet acts in obedience to the will of a second person who is said to have induced the hypnotic state. The person inducing the hypnotic state is called the hypnotizer, and the one subjected to the sleep the hypnotic. The hypnotic has seemingly lost his consciousness and will power, which have been transferred apparently to another, who directs the subject according to his own desire and will. This is the general statement regarding hypnotism. The fact, which is claimed, that one person may exercise such control over another and induce activity according to his will, is of such moment and involves such problems, as to enlist the attention of all thinking persons. The far reaching effect of such a theory and assumed power may be appreciated as of the greatest importance from a medico-legal aspect. We learn through the press of cases before the courts where such defense has been made in extenuation of crimes committed. In a letter of May 25th, 1895, a Paris correspondent of the *Medical Record* says: "The important and, we may add, alarming questions of hypnotism and suggestion have passed far beyond the domain of medicine and are being vulgarized by the laity, as well as employed by charlatans, somnambulists and mesmerizers of all sorts, sometimes criminally." He reports a case in court in which a man and his wife, named Jouve, so magnetized a landlady with whom they boarded, putting her into hypnotic sleep, causing her to live in a state of ecstasy until her death, when it was found that Jouve had obtained a power of attorney over her entire wealth. The trial for setting aside the will on account of suggestion, was still going on at the time of the correspondence. The same writer sets forth the statement that there are two leading schools in this branch of science, to wit: The School of Nancy, with Bernheim at its head, asserting that hypnotism is an inferior state, a sort of dividing into two of the soul (whatever that may mean), and the School of Paris, stating, through the illustrious Charcot, that the hypnotic state is a disease of the nervous system, a disease that can be induced and realized in the

hysterical subject only. It must be admitted that it is difficult to lay down any fixed dogmas. It is of the utmost importance, therefore, that physicians, attorneys and all learned men should have certain well established views on this subject. I design, in the brief time allowed in presenting this matter, to glance at,

First, the different terms that have been offered in treating this subject, and some historical facts relating thereto;

Second, facts as they are clinically presented.

Third, such theories and explanations as are offered.

The terms animal magnetism, clairvoyance, mesmerism, braidism, neuro-hypnotism have each been used in describing the peculiar nervous condition under consideration. It will be observed that each of these terms, with two exceptions, implies a theory explanatory of the mental phenomena. The terms mesmerism and braidism were derived from the investigators of the subjects. In the application of the term animal magnetism, it was assumed that the occult force exercised by the hypnotizer was allied to that of magnetism as observed in matter.

Electro-biology regarded the phenomena of life as due to electrical currents generated in the living body, which were capable of influencing a negative force in another body. Clairvoyance implied a certain power of mental penetration into things distant or apart from the present, and of giving information as to matters of fact which can not be conceived of as occurring through the natural channels, but must, if such a power exists, be credited to some unknown psychic force, or to some intelligent influence communicated from another sphere of existence. To this class may be referred the so called spirit rappings, mind reading etc.

In regard to a large proportion of these phases it is established that they are not sustained under competent, searching investigation, while others may seem to be real and referred to those mental illusions which are not infrequently experienced where expectant attention dominates the individual, prompted by faith in the one offering the suggestion. It is well understood that the mind, under certain conditions of the brain or dominated by intense excitement and fixed attention through the imagination, may be honestly impressed by the presence of persons or objects that are only ideal. For example, during my early experience



in hospital I was called at midnight to care for the ravings of one suffering from delirium of "*mania a potu.*" On entering the room, with wild glaring eyes he pointed out imaginary persons in different parts of the room, fought them as real, calling my attention to them and calling on me for help. On being remonstrated with and told that I could not see them, in a state of reflection he replied, "Oh! I see you have not got that second sight as I have." Here was, on account of the morbid condition of the brain, double sight and double consciousness. He saw me and talked with me, and as really saw, through his mental vision, imaginary persons whom he fought. This was due, no doubt, to a suggestive condition of the brain.

The manifestations of force in any new and unnatural or inexplicable way has been referred by superstitious ones to special manifestations of the Deity or spirits. There appears in all literature of all times records of marvelous exhibitions of power through the agency of persons supposed to be under special influence of a good or an evil spirit—God or the devil. Hence the wildest imaginations of Dante or Milton found fruitful soil for the wildest fancies. At this time, with the blazing torch of science lighting the inquirer, one allows nothing to be referred to the realm of superstition, but calls it to halt and stand for inspection. The days of hobgoblins of all sorts have gone. Persons in various times have appeared to be influenced by a mysterious force said to emanate from another. The manifestations of that force, as has been said, have been variously interpreted in various ages. Before and after the advent of Christ, persons were said to be possessed of unclean spirits or to be under the control of the devil, or, if moved to a good action, to be under the control of the good spirit. Later, during times of intense religious excitement, they have been said to have the "power," or had ecstatic visions and thrilled the minds of the superstitious ones with strange stories of angels filling the air. In Europe and in New England witchcraft had its sway during parts of the 17th and 18th centuries. Early in the dawn or renaissance of scientific investigation, F. A. Mesmer, a learned French physician, born May 23, 1733, at Weil, educated at a German medical school, observed that the priests effected cures without the aid of medicine.

He became interested in astrology, imagined the stars and heavenly bodies exerted an influence on living beings on the earth. He identified the supposed force with electricity and then with magnetism. Then as now, all new inventions or theories of new forces were interrogated as to their applicability for curing diseases. Hence, it was but a step to apply a magnet to a diseased member or body. Cures were effected. He subsequently discarded the magnet and came to feel that some occult force resided in himself, as in the priests, by which he influenced others.

This was the beginning of an investigation of the mental state now called hypnotism, by a learned physician. Though a mystic in those superstitious times, he sought some solution of the occult influence, hence mesmerism and animal magnetism came to be terms used in describing such a supposed force. For the past two centuries these unknown manifestations have been presented under names given to forces that have come to have definite shape or laws in the field of science. They have been spoken of as imponderable forces. The mysterious and incomprehensible force manifested in electricity, crystalization, magnetism, heat, light, chemical affinity and biotic processes, was by Richenbach given the term "odylic force," *hodos* (way) and *hyle* (principle), hence applied to the force itself called the odic force. Mesmer, in the beginning of the 18th century, as has been said, called attention to this force and supposed it resided in the magnet—hence animal magnetism—but subsequently discarded the magnet and supposed that some kind of occult force resided in himself by which he could influence others. The magnetic force, he held, permeated the universe and more especially affected the nervous system of men. He attracted a large following to his new teachings and moved from Weil, his native place, to Paris in 1778, when the French capital became greatly excited on account of the marvelous effects of what was called Mesmerism. In his methods he added mysterious surroundings to his apartments in his seances, having them dimly lighted and hung with mirrors. Strains of soft music broke the painful silence, odors of incense filled the air. Patients who came for healing sat around a vat of chemicals simmering over a dim fire. They held each other by the hand in rapt expectancy, when, at the appointed time, Mesmer,

clothed as a magician, glided among them and is said by a touch to have imparted healing virtue. It is not difficult to imagine the effect of such surroundings upon certain temperaments even nowadays. At that time the government of Paris appointed a commission of physicians, members of the Academy of Science, to investigate the phenomena. They made elaborate reports, both majority and minority, admitting many of the facts, but contested Mesmer's theory of animal magnetism. They attributed the facts to physiological causes. Notwithstanding the expose, Mesmer left many disciples who showed that many of the phenomena might be produced on subjects by gentle means.

Joseph Braid, a surgeon of Manchester, studied very critically the subjects of animal magnetism and mesmerism in 1841. He discovered that by a fixed and abstracted attention of the mind, and fixed gaze of the eye on an object, he could secure a condition of mind or nervous state of the individual allied to that called mesmerism, which he called neuro-hypnosis. This would seem to be the more correct term, though it does not define clearly any definite and clear condition. It indicates a difference from the condition of true hypnosis or normal sleep as being applied to the nerves. Braid showed that in certain neurotic subjects it might be used effectively for the cure of certain forms of disease. No doubt we may find an explanation here for the therapeutic effects given to Perkins' tractors, blue glass, Christian science, faith cures etc., upon certain invalids. Braid was the first to investigate the subject with anything like scientific care, and for the different phenomena he attempted to give a physiological explanation. He brought to his aid physiologists of his day, as Robert Mayo and W. B. Carpenter. They formed a theory in explanation of the phenomena, giving the reflex action of the ganglia of the sensorium with the cerebrum as offering the line of the explanation, though the theory then rested only as a theory, since which time added investigation has added force to the theory. This is but a meagre outline of the real attempt to examine this important subject. Its solution involves a consideration of physical, metaphysical and psychological factors. At the very beginning it must be admitted that it is difficult, with our knowledge of these sciences, to lay down any fixed dogmas or principles in matters so far reach-

ing and including such complex factors as are involved. The researches of Professor Liebault in the domain of hypnotism, seconded by his pupil Bernheim, have given much light to the field of psychological investigation. Their discovery culminated in the enunciation of this law, "hypnotic subjects are constantly amenable to the power of suggestion, and suggestion is the all important factor in the production of all hypnotic phenomena." This law seems to express a truth, and it is accepted as a key for unlocking all the mysteries involved in this mythical subject. It is true that hysterical and mentally weak or mentally unbalanced subjects are most easily affected by suggestion. One having certain brain disturbances from different causes may be so easily thrown off from that equipoise in mental operations as to be easily influenced. A picture, a brilliant object, counter-moving objects revolving or passing before the eyes may produce bewilderment, in which state one may act in a bewildered manner not according to deliberate judgment. Sensation for the time is not accurately perceived and acted upon after the usual deliberate consideration. In this state there is a fascination, a wide difference from hypnotism, and yet it may constitute its first stage. Certain indulgence in stimulants or narcotics which may impair the delicate cells of the brain, may in a measure so involve the nerve force as to make the victim an easy subject to suggestion.

Various methods have been used by different hypnotists for bringing the subject under the hypnotic state. Mesmer placed the subject before him, grasped the hands, thumb to thumb, with his eyes steadily fixed on the eyes of the subject, urging complete trust and freedom from fear. After the fixed gaze, gentle strokes were made over the head, face and down the arms, with a request to close the eyes and go to sleep.

Another method is to cause the person operated upon to stare fixedly upon revolving mirrors placed at a certain distance from the eyes, elevated a little above the forehead so as to put the eyes and lids a little on the strain. This is Luy's method, called the fixation method. The operator standing near by observes the pupils first to contract and in a short time to relax, when he makes a few passes over the face gently and brings the tips of the fingers over the cheeks and eyelids, at which the subject may attempt to arouse

himself against the stupor, but soon returns to a condition of repose and falls into the unconscious state. At first the limbs are fixed and rigid in any position which they are placed by the operator. This is a state of catalepsy, from which he may pass into a state of mind in which he sees, hears, or tastes things according to the suggestion of the operator. This is a state of hypnotism. It is to be observed that the suggestion made by the hypnotist may be successfully made by touch, sight or sound, always through one of the normal senses, and not by the will power of the hypnotist. The methods are thus spoken of as the fixation and suggestive methods.

In an observation which I myself made in my early life, a metal of copper and zinc plate combined was placed in the hand, and the subject was required to fix his attention upon it in a pliant, trustful way, while the request was made that the thoughts be called in and fixed upon the metal. The combined coin was supposed to generate an electrical current which was thought to contribute to induce the state. It was called electro-biology.

In each of the methods the mind of the subject is similarly affected. It (the mind) passes through the stages of abstraction, catalepsy and hypnotism. There is first a perversion or suspension of consciousness; second, abeyance of volition; third, yielding to external sense impressions; fourth, intent concentration of mental faculties upon some idea, with expectant attention.

The question for solution is by what force this artificial state is induced. Is it through some special power of the hypnotist? or is it through combination of existing normal conditions?

In attempting to answer these questions, it is to be borne in mind that in active life the sensory impressions are quick and evanescent and constantly renewed. New images and thoughts pass rapidly before the mind during waking, whether working, eating, walking, or in the enjoyment of leisure. And if the sense impression remains long before the mental vision, at the same time holding the attention, there comes a sense of fatigue and a disposition to rest or sleep. If the attention is fixed on one set of sensory impressions, fatigue and weariness, followed by sleep, supervene. Thus an hour or two of listening to an orchestra,

however exquisite the harmony, tends to drowsiness. A brilliant thought, a sermon, or any address delivered in a monotonous tone without direct thought, application or illustration, will cause drowsiness on part of the audience. The mother's lullaby, with its gentle, soothing monotone, has its tranquilizing effect upon the trusting child. Those persons who are troubled with insomnia in the small hours of the night toss with closed eyes, with the mind active, flitting over the most casual and unimportant events of the previous day, may find a remedy by opening the eyes with an effort, fix them upon some bright body as a spark or a small light, at the same time calling in the wandering thoughts to follow the steady gaze. Soon the lids will drop, the attention relax, and drowsy sleep gently arrest the consciousness, and the person will fall into a pleasant sleep.

This illustrates the effect of the methods for securing the hypnotic state.

It would seem then that the method of securing the hypnotic state by causing the subject to gaze upon metal, glass, or any bright substance, depends upon the feeling of fatigue corresponding to these familiar experiences. All persons are not equally susceptible to these influences. Beannis found about 18 or 20 per cent. impressible. Children are very susceptible. After the age of fifty-five, the susceptibility lessens. Persons of docile mind, and those trained by authority or automatically to discipline, are more sensitive. It is claimed that epileptics or those of feeble wills and minds are more easily affected. This idea, however, is not sustained by all authorities. I have met those who claimed the power of bringing themselves into a trance or hypnotic state. It is true that in intense application many of the strongest minds become so absorbed in the thought of the moment as to be entirely oblivious of sense impressions around them. This is abstraction, a condition so common in the experience of persons that it is regarded as an evidence of strong mental power belonging only to a philosopher. In the ecstatic states of minds of those under intense religious excitement, there is manifest a phase of hypnotism. The person was said in those conditions, by common observers, to "have the power." The old time Methodist meetings recall vivid memories of such scenes. One who has ever attended the religious meetings of the colored peo-

ple in slavery time, or during the war, will recall scenes of hypnotic ecstasies in most vivid forms.

It remains for us to seek, or attempt, a solution of the assumed influence of the hypnotizer over the hypnotic.

By recurring to natural sleep, we may receive some suggestions at least. There are degrees of the hypnotic state, as there are degrees of sleep. The hypnotic state may be so slight that, on being aroused, there is a vivid recollection of all that has happened. This implies conscious perception of what took place. Memory depends on the relation and degree of attention. If attention is strong, the recollection will be vivid. The sensory impressions may be so feeble and brief as to leave no tracing on the brain for the action of memory. This fact assists in explaining how in deep hypnotism there is either no recollection of what occurred, or the recollection can only be aroused by hints and questions. It is generally admitted by physiologists that the cerebrum is the seat of attention and higher mental operations, though the interdependence between it and the lower sensory ganglia which receive the impressions and the motor ganglia which are the starting point of motor impulses is not fully understood. It is further admitted that one portion of the nervous system may work without the other. There may be purely sensory impression and reflex action through voluntary muscles, in which the consciousness is not involved. Or there may be such an intense operation of the mental faculties, as reflection, reverie, abstraction or imagination, as to allow the person to give no attention to sensation.

It is a law of nerve action that processes that are always of a conscious kind, by repetition become habitual, so that they may be performed without consciousness. Such are many of the daily operations as reading, playing musical instruments etc. Thus as a child learns to play on the piano-forte by great conscious effort, each note must be recognized and appropriate muscular movements made, which, by repetition, become so familiar as to be repeated without consciousness. So all movements the result of sensory impressions or mental determination may become unconscious by habit. Those due to sensory impressions are manifest in the hypnotic state. In normal sleep, if the foot is tickled

by a straw, it is drawn up. So one by sense impression during sleep can be made to perform many unconscious voluntary movements. You recall the anecdote of one who wagered a sum that he could steal the sheet from under a sleeper without his awakening, which was accomplished by appealing to this principle of the reflex action of voluntary muscles under the power of habit.

These facts assist in interpreting many of the otherwise inexplicable actions of the hypnotic.

In the hypnotic state, then, a person is said to be in a condition as if the higher mental faculties had been thrown out of gear with the lower, so that one acts under the suggestion of the hypnotist. Those suggestions are made through the sensorium which are responded to through the power of habit, without arousing consciousness and will.\*

Professor Rudolph Heidenheim, professor of physiology in the University of Breslau, was the first to point out what seemed a rational expose of many of the hitherto inexplicable phenomena from a physical basis.

We are ready to admit that the mind is the function of the brain. To judge of the function, the organ must be inquired of. While these statements seem to be true, we must admit with equal firmness that there are still certain influences open to our own volition, and certain promptings from without, which determine the quality of mind. The limitation of that influence involves somewhat the problem before us. The testimony and observations of competent ones for the past one or two centuries are that a small fraction of civilized people can by certain processes as mentioned be brought into a hypnotic state by influences from without. It is further established that no one can be hypnotized without his consent. The hypnotist imparts no power whatever, save that he becomes the agent for applying the means; the conditions essential seem to be that he must be agreeable in manner and appearance, and command the confidence of the subject. His influence is exerted through the senses—touch, taste, motion, sight, hearing, or all combined. It is also probable that he may influence through the lower passions habitually susceptible. It has already been intimated,

\*Through lack of space, some portions of this essay have been omitted. These parts, while they aided in explaining the subject, particularly to lay hearers, (for instance, by reviewing the physiology of the nervous system etc.,) were not deemed essential here to the medical reader.—ED.



and is quite generally promulgated among the people that the ability of one man to hypnotize another implies a very dangerous power, and one which, in the hands of an unscrupulous man, may be used for criminal purposes. The power manifest from the standpoint of an audience assembled to witness experiments of this character would impress, certainly, the average man with an undefinable dread. He sees subjects by certain mysterious manipulations thrown into a profound sleep and awakened by a snap of the finger. The subject is made by suggestion to see, hear, taste and feel things in most unusual manner. He may see friends in whom he has complete confidence upon the platform become subject to the same mysterious power. He may himself be so influenced as to do such things as will bring the blush of shame to his cheek upon being told afterwards of his actions. Such evidence would therefore appear valid ground for the opinion that one might be induced to commit a crime under the mesmeric influence.

What are the facts, so far as they are established, to counteract this opinion?

It has been our effort to show that a suggestion made by the hypnotist is only through the senses; that is, the influence is only to put at rest consciousness and will, then to appeal through the senses to suggestion, in response to which the hypnotic becomes an automaton and is played upon according to the suggestion of the operator.

The two important influences, which all authors at present agree upon as determining the conduct of a hypnotic, are suggestion and auto-suggestion. The suggestion comes from the hypnotizer; the auto-suggestion is the individual promptings of the hypnotic and includes his instincts, habits and general character during life. Suggestion can not be made to violate auto-suggestion. Numerous experiments have been made which demonstrate the impossibility of controlling the hypnotic subject so far as to cause him to do that which he believes or knows to be wrong. Thomas J. Hudson says: "A common platform experiment which causes persons to get drunk on water on the suggestion that it is whiskey, observes that one conscientiously opposed to the use of strong drink, invariably and emphatically declines." And such instances, he observes, on the stage are passed by as part of the amusement, and no lesson is learned from

them. The platform experimenter further knows, that while he can cause a crowd of subjects to go in swimming in imaginary water, he can never induce them to remove their clothing. They usually avoid any act that shall make them appear ridiculous.

The *New York Medical Journal*, January 26th, 1895, on the relation of hypnosis to medical jurisprudence, also Dr. Cook, in a recent work on hypnotism, have treated of auto-suggestion quite fully, giving illustrations of the limitations of the power of suggestion. A moral man in the hypnotic state has a pasteboard dagger placed in his hand by the hypnotizer, who directs him to stab the one nearest him, which he does without hesitation. Then the hypnotist places a real dagger in his hand with the same instruction, but the hypnotic hesitates. If insistence is made by the hypnotist, the hypnotic comes out of the state in great agitation. The hypnotist instructs the hypnotic to commit a crime which nothing could induce him to do in his normal state. The suggestion meets a conflict with auto-suggestion, and it is not able to move the subject to the act of criminal violence.

Again, the hypnotist has a virtuous woman under control, when he makes improper advances to her; she promptly resists, and if he presses his purpose, she will come instantly to the normal exercise of her mind with a shock, probably followed quickly by a hysterical explosion.

The experimenter never attempts to argue with his subject. Any such attempt awakens him usually with a nervous shock.

A further explanation of the application of auto-suggestion should be made. Auto-suggestion is a term which implies not only the assertion of the objective mind of an individual addressed to his own subjective mind, but also the habits of that individual, the settled principles and convictions of a whole lifetime. The more deeply rooted these principles, the stronger is auto-suggestion, and the more difficult to be overcome. The stronger auto-suggestion in the mind of the subject will prevail, hence the question whether a hypnotist can successfully be employed for criminal purposes must be determined by inquiry into the character of the subject. If he is a criminal character, auto-suggestion will concur with the criminal suggestion of the hypnotist.

The same rule applies regarding sexual crimes; and it is a maxim in hypnotic science that no virtuous woman ever was or ever could be assaulted while in the hypnotic state. Indeed, Hudson reasons that a virtuous woman is in less danger while in that state than in her normal state, on the ground that hypnotic subjects are endowed with a physical strength superior to the normal. He also brings the testimony of Professor Gregory to fortify this statement, who maintains that in the hypnotic state the subject is, as it were, living in a spirit world where the true character predominates. The corollary may be accepted as following the line of argument given that the hypnotist can only influence by way of suggestion in bringing into activity those acts that are familiar. One not accustomed to dance can not be made to dance. One not accustomed to sing can not be made to sing. Trilby, under this reasoning, is a fiction. There is no basis in physical or metaphysical fact or theory for her existence.

We admit that all physical phenomena in nature have their laws of action. All bodily organs act according to law and with uniformity under uniform condition. May we not argue with force that all mental, physical, or spirit activity is uniform under uniform conditions and acts according to law. So that we may be assured with absolute certainty that there is "natural law in the spiritual world."



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## Editorial.

### QUERIES AND SUGGESTIONS FROM CORRESPONDENTS.

In a letter to the Editor, in the department of Correspondence in this number, Dr. Weeks makes a number of suggestions and queries. While the Editor is willing and ready to answer questions and give his personal views on these or any other medical subjects, he much prefers to have readers of the GAZETTE respond to such queries from correspondents. In this way many useful ideas and experiences may be elicited from many different sources, and the brief comments which we intend to make here are made in the hope of encouraging others to contribute.

Our correspondent inquires concerning the use of ergot in the early stages of labor. We have always adhered to the rule of withholding ergot until the completion of the second and usually until the completion of the third stage. The exceptions to this rule have been very rare and the departure from it not very wide. For instance, in a multipara, when the outlet was quite ample and lax and offering no obstruction to a moderate sized head which lay low in the pelvis, where the pains were weak and at long intervals and hemorrhage was feared, and where we fully expected to deliver in any event within a few minutes, perhaps having the forceps already locked upon the head, we have upon a few occasions administered ergot before the child was fairly in the world. In early practice we used to give ergot in nearly every case as soon as the child was born—for fear of post partem hemorrhage; but later learned to discriminate better the cases in which danger from this source was threatening, so that it was usually not given till the end of the third stage, and sometimes not used at all. It is doubtless true, as the doctor says, that ergot is often used early, and we have seen it so used; but it was in the practice of physicians whose knowledge and skill one would not like to take as guides, or of ignorant midwives. In 1888, in the May number of the *GAZETTE*, in an editorial on midwives in Cleveland, we reported in detail a case in which a midwife had given ergot to the tetanic degree with a breech presentation impacted transversely in the mother's pelvis.

The rule should be not to use ergot before the second stage is completed, and it is not always necessary till the third stage is completed. In a considerable experience we have never but twice seen any trouble about extracting the placenta, because ergot had been given before it was detached. One of these was the so called hour glass contraction, which was overcome with small difficulty. The other was seen in consultation and being an adherent placenta with the uterus tightly contracted by ergot, required the relaxing effects of chloroform and some work for its removal.

It is certainly often very convenient to have a head mirror in visiting patients in bed. In the absence of this we have often resorted to a small hand mirror found in the patient's room. This, reflecting the light from a window or lamp, avoids the necessity of moving the patient. A lighted

match, if properly held, enables one to inspect a throat in a dark room. The proper way to hold the match after lighting it, is between the thumb and index finger with the hand horizontal and the ulnar edge uppermost. Thus the hand shades the eyes of the observer.

We do not consider the post partem douche necessary or useful in normal cases. It is seldom that septic matter finds its way into the parturient canal unless the attendant puts it there.

After turning, forceps, craniotomy, or other unusual manipulations, or in case there has been a midwife there before you, use the douche. Also if there is other reason to suspect poison—as a dead fetus, or purulent vaginal discharge.

Does chloroform check uterine contractions? Yes, if given in considerable quantity. Thus precipitate labor can be moderated. But with many patients it can be given sufficiently to obtund sensibility without noticeably lessening the force of the uterine contractions.

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### PHYSICIANS SHOULD WORK LESS.

Dr. Kortright has an article in the *Brooklyn Medical Journal*, quoted by numerous journals, worthy to be quoted generally within the hearing of physicians. Unfortunately, not all of us are so situated as to be able to follow the good advice; but if many who could would follow it, more work would be left in the hands of those who are younger, physically better able to perform it, and anxious for work. Also if the younger men would realize that ours is a peculiarly trying mode of life, they might conduct themselves accordingly. They might study to avoid, at least to some extent, the deleterious influences and correct bad habits. They might give due attention to the business side of professional work, adopting methods recognized as proper and business-like in other callings, realizing that any time through death or failing health the income may be cut off or very much lessened.

In the article referred to, Dr. Kortright says that arterial sclerosis is a common cause of death in physicians, and that the lesson we should learn from this is, not to work too long. "When you find your arterial tension increasing, your tem-

poral artery becoming tortuous, your radial growing hard, especially if you have a little palpitation and pass an increased amount of limpid urine, whatever your age, know that old age is upon you. Henceforth shape your life like one that is old. Curb your ambition. Be content with a small practice. Reduce your expenses. Give up your night work. Decline confinements. Take a long vacation in summer. Retire early. Eat abstemiously. Drink not at all. Sell your horse. Take a great deal of moderate exercise in the open air. Watch the functions of the skin. Guard against a chill. Cultivate an even disposition. Study to be quiet."

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#### A MEAN TRICK.

The news comes from Morristown, N. J., that Ex-Congressman Augustus W. Cutler has been perpetrating a practical joke on some of the doctors of his town and a noted surgeon of New York. For three weeks Mr. Cutler stayed at home in bed and complained of a list of symptoms which are supposed usually to accompany appendicitis, and thus led the Morristown doctors to believe that he really was afflicted with that disease. They sent for the specialist who came down from New York, confirmed the diagnosis, found the pathognomonic point and proposed operation, which he proceeded to perform *secundem artem*.

On dissecting down in the usual situation the trick was exposed. The man had no appendix at all and never had had any, and of course no appendicitis. Now, Mr. Cutler and his friends call that a joke on the doctors and think they have a right to smile thereat.

What is to be done with a creature who goes around calling himself a man when he is lacking in some one of the appurtenances, usually possessed by man, and one, too, which makes him most useful to doctors? What shall be done if he carries his imposition so far as to imitate symptoms for weeks and have doctors going on journeys and taking all the bother of dosing him and examining him and opening him up, to find him only a make-believe after all? There is no penalty provided—but there ought to be—it's a mean trick. We have all heard of the dog who had no hind leg on the off side, and who challenged a dog who he knew made a particular fad of getting a death grip on the

off hind leg, and when the battle came off and the faddist was about to cover himself with glorious victory and reached for that hind leg, it wasn't there, and—and—there is the woman who made believe she was pregnant and had morning sickness and cessation of the menses and enlargement of the abdomen. She made the baby clothes and engaged the nurse and complained of pains and sent for the doctor. And the doctor came and examined her and said he would wait a while; perhaps the baby wouldn't be born for some hours. So he examined and waited by turns for two days and two nights, when the folks became impatient and called in another doctor, who advised an examination under chloroform. When the patient was under chloroform, the enlargement of the abdomen all disappeared, being nothing but gas and muscular action, and there wasn't any pregnancy at all. Then all the people, excepting the doctor who watched and waited, smiled, just as they are smiling in Morristown, and always will, as long as doctors do such things. In vain we quote "Life is short, and the Art long; the occasion fleeting; experience fallacious, and judgment difficult." They only smile—confound them—and smile.

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#### REPORT OF PAN-AMERICAN COMMITTEE ON A DEPARTMENT OF PUBLIC HEALTH.

Following is an abstract of Report of the Committee of the first Pan-American Medical Congress on Department of Public Health for the United States, of which Dr. H. L. E. Johnson was chairman.

The committee was formed by direction of a resolution of the first Pan-American Congress at Washington, September, 1893, the object of the committee being to secure the passage of a law creating a secretary of public health on a parity with the secretaries of the other departments.

The committee, consisting of Dr. H. L. E. Johnson, Dr. William Pepper and Dr. Charles A. L. Reed, drafted a bill which defines the rights, powers and privileges of the department.

SECTION 1. Provides for the appointment of a secretary and assistant secretary at salaries of \$8,000 and \$5,000 respectively.

SEC. 2. Defines the duties of the department in respect



to health matters and provides for the co-operation with the medical department of the Army, the Navy and Marine Hospital service, public and private hospitals, state and city boards of health.

SEC. 3. Provides for detail of government medical officers to assist the department in times of plagues etc.

SEC. 4. Provides for appropriation of \$50,000 for carrying the law into effect.

SEC. 5. Provides for the appointment of the secretaries within sixty days after the passage of the act.

Further recommendations of the committee provide for uniformity in state and national laws, respecting importation, exportation, inspection and standards of food stuffs, water supplies, beverages etc., providing penalties for violation.

The second recommendation provides for uniform laws, state and national, regulating the manufacture, importation, exportation, inspection and labeling patent medicines with formula of drugs, with penalties for violations.

The next is to secure uniform laws, state and national, regulating the sanitation of railway cars of all kinds, ships, barges, public vehicles, ambulances, slaughter houses, hospitals, jails and reformatory institutions etc., with penalties for violations.

Another section calls for passage of laws, national and state, regulating hygienic management of contagious diseases, personal and house quarantine, vaccination, hygiene of dentistry, public baths, barber shops and gymnasiums, amusement halls, migration of tramps, disposal of dead bodies, garbage and sewage, draining of land etc., with penalties for violation.

Another provides for passage of uniform laws, state and national, providing for and regulating disinfecting plants for mails, foreign and domestic, clothing, bedding, money, persons etc., bacteriologic laboratories, animal industry and inspection plants, state and national hospitals, retreats or sanitariums for the treatment of habitues, inebriates, venereal, tubercular and insane persons, with special laws for commitment and discharge from the same district, nursing for the sick poor, obstetrical contagious diseases etc.

The passage of uniform laws providing for the appointment of state and national medical experts and the

punishment of medical crimes is urged, and also for the regulation of state and interstate medical, surgical and dental practice, which will protect them as sciences and not as trades.

Further recommendation is for adequate appropriation of money by the several states and the general government for the scientific investigation of public health matters in this and in foreign countries and the suppression of diseases endemic and epidemic, with the addition that the appointment to medical office shall depend upon professional ability and efficiency and not upon political influence.

G. W. C.

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### MEDICAL ADVICE IN NEWSPAPERS AND LAY MAGAZINES.

In a recent article by one of the greatest medical journals in the country, comment was made upon the dull times which physicians are experiencing this year. Prominent among the causes alleged, and ranking with counter prescribing by druggists, the patent medicine curse, free dispensary abuse and kindred evils, was that of medical advice given in newspapers and literary or quasi-literary magazines. Some of these publications have a doctor in their pay who writes prescriptions for all subscribers or all readers who send an inquiry with a description of their case; a certain number of columns, or so many pages per issue, being devoted to this free medical advice. Other publications make a feature of disquisitions upon various medical topics, by writers probably paid for their contributions, or possibly cajoled into writing by visions of popular fame to be achieved through printers ink. Some newspapers combine these features and undertake to discuss in a general way a series of medical topics, and give particular advice to individuals upon application. The whole plan and its tendencies are bad. For one reason, because it leads to loss of legitimate business on the part of medical practitioners. The doctor who is tempted into giving away his knowledge and advice in this way, will find his patrons trying it on, just as they do the patent medicine, or the doctor's own prescription, which did a neighbor or relative so much good, and then they will tell their friends about it and it will go the rounds, whether it does any one else any good or not. Another reason that

this practice is deleterious is the same as makes the patent medicine such an evil to the people, in that they are led to experiment upon themselves, while precious time is lost and the disease gains headway. Ninety-nine-one-hundredths of the advice that is thus taken goes for naught if it be not actually deleterious to the patient, and when used with what purports to be the qualified advice or sanction of the profession, it lowers the popular esteem of that profession and breeds contempt. As every physician knows medical problems have too many factors which must be taken into consideration to make this sort of advice of any value to the individual, and the plan results in disadvantage both to the laity and to the profession. No physician should delude himself with the idea that he will gain one iota of desirable reputation by popular essays on practical medicine; while he is sure to increase the embarrassments of a calling which already has enough to contend against.

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## **Periscope.**

### **REICHEL ON THE AFTER-TREATMENT IN CASES OF ABDOMINAL SECTION.\***

The treatment after abdominal operations differs much in the practice of surgeons, from the policy of maintaining intestinal quiet with opiates, to the active policy of purgation, while the technique of laparotomy among all is in the main the same.

The author asks two questions: First, under what conditions is opium indicated? Second, when is reopening of the belly necessary. The opium treatment of peritonitis is based on the theory that by maintaining the bowels at rest, the progress of the disease could be prevented. It was believed that by this means the process might be localized. On the other hand the greater the absorbing power of the peritoneum, the more likely will the bacteria be rendered harmless. This absorbing power is not increased by quiet, but by peristalsis. The author observes that in the normal progress of the case after laparotomy no indication for opium exists. Exceptions, however, are cases after operations for appendicitis, when local infection exists. In resection for the sake of security of suture it is important to keep the bowels quiet. Opium favors the formation of adhesions and the development of ileus, it marks the symptoms of

\*Verhandlungen der deutschen Gesellschaft für Chirurgie, Kongress 1895.

developing intestinal obstruction. Adhesive angulation does not frequently cause total obstruction. In such cases increased peristalsis but aggravates the distention, and the use of purgatives is not only useless but sometimes harmful. Adhesions are usually due to the technique, whereby raw surfaces are left exposed, and there is no method of after-treatment that can prevent their formation.

Repeated lavage of the stomach and the use of opium constitute the best line of treatment to relieve the distention above the angulation. In acute ileus neither opium nor purgatives are of use. Operation affords the best chance for recovery. In Reichel's opinion opium alone is indicated, and purgatives are contraindicated by the symptoms of infectious peritonitis. The indications for opening the abdomen are—intra-abdominal hemorrhage, ileus and obstruction in which improvement does not appear within 24 hours, and cases of circumscribed inflammation. The symptoms of such condition resemble the symptoms of intestinal obstruction and may be differentiated by the presence of fever. In all cases of peritoneal infection an energetic opium treatment should first be given in order if possible to localize the septic process; when localized and the diagnosis of suppuration has been made, laparotomy should be performed.

G. W. C.

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### Among Our Exchanges.

Encouraging testimonials from sources apparently reliable are coming in respecting the valuable qualities of methyl-benzoyl-tetramethyl-gamma-oxypiperidin-carbonic acid methyl ester, more commonly known as *eucain hydrochlorate* for short. It is a synthetic product possessing anesthetic qualities, if anything, superior to those of cocain, with this advantage that its solutions do not deteriorate like solutions of cocain, and, moreover, it has proven harmless in quantities as large as twelve or fifteen grains. In large enough doses it is toxic to animals, producing first tonic and clonic convulsions and finally paralysis, but the toxic dose is so large—from 1-2 to 2 grains per kilogram of weight—that, unless subsequent experience shall show that some persons are peculiarly sensitive to its action, we shall not need to be so keenly on the lookout for untoward effects as with cocain. DR. G. W. SPENCER, of Philadelphia<sup>1</sup>, affirms, after repeated trials, that "we can safely say that this agent produces the most complete local anesthesia of any drug tried up to date." He uses it as cocain is used and in solutions of from two to five per cent. The solution,

<sup>1</sup> University Medical Magazine, November, '96.

being stable, can be boiled and cooled immediately before using, thus rendering it safely aseptic. Extirpation of an ingrowing toe-nail is about as severe a test as you can get for determining the efficiency of a local anesthetic; cocain, though it acts admirably in most cases, fails in some, and the amount necessary to produce anesthesia may, and does now and then occasion toxic symptoms, but by the employment of eucain the operation was rendered absolutely painless from beginning to end, the first pain complained of being at the redressing twenty-four hours afterward. The details of the operation will serve to convince any one how severe was the test. Constriction was applied to secure a bloodless operation, and the surface was frozen with ethyl-chloride. With a hypodermic syringe eucain was injected into the frozen tissues above, at the sides of and beneath the nail, the freezing making the punctures painless. After waiting five minutes for the solution to disseminate and for the tissues to thaw, the blade of a pair of scissors was forced under the median line of the nail and the latter cut completely through its long axis. Each half was then extracted by means of a pair of strong bone forceps. The matrix was removed with the scissors and the curette, and exuberant granulations were excised, for the cases were so severe that it was deemed wise to remove the entire nail on each patient. For anesthetizing mucous membranes, or raw or ulcerated surfaces, a 5 per cent. solution is best. In ordinary tissues anesthesia is complete in from two to five minutes, but where the tissues are infiltrated with inflammatory products ten minutes is required. No systemic effects were noted in any of the twenty cases which DR. SPENCER reports. The drug has been also used in eye practice, for which use the weaker solution is better, as, according to DR. J. C. CLEMESHA, of Buffalo,<sup>2</sup> patients complain of a smarting, pricking sensation for some minutes, when the stronger solution is instilled. Unlike cocain, eucain produces a hyperemia of the conjunctiva, the pupil does not dilate, and the corneal epithelium shows no tendency to become sodden as after cocain has been employed. In the Buffalo Eye and Ear Infirmary, it has been used in strabismus operations, iridectomies and extractions with complete success, the patients complaining of no pain whatsoever, confirming the observations of DR. ROBERT BRUDINELL CARTER, of London,<sup>3</sup> who reports a cataract extraction under its use. He says, "Before my arrival, the nurse had applied a drop of the solution (5 per cent.) within the lower lid every five minutes for six times, and I found the eye perfectly insensitive. The pupil was unaffected and acted readily to light. There was scarcely any bleeding from the

<sup>2</sup> Buffalo Medical Journal, October, '96.

<sup>3</sup> Lancet, July 11, '96.

cut iris, there was perfect quiescence of the muscles, and there was no pain. I asked the patient whether she had felt anything and she replied: 'I felt something moving about my eye, but it did not hurt me.' There was no pain afterward, and the healing was uninterrupted." Not long ago I did a circumcision under eucaine anesthesia, freezing the skin with ethyl chloride as recommended, so that the insertion of the needle should be painless. The anesthesia was as perfect as could be desired. The statement is made that dentists are using the drug quite generally for the painless extraction of teeth; three to five minims of a 10 per cent. solution sufficing to anesthetize a root.

Before resorting to abdominal section in cases of acute intestinal obstruction, DR. J. HAMILTON BROWNING advises the giving of chloroform to full surgical anesthesia,<sup>4</sup> and while the patient is anesthetized, giving an enema of an ounce of glycerin, two ounces of salts and three or four pints of water well up the colon, gently kneading the abdomen in the meanwhile. He cites cases showing that cases resisting ordinary methods are relieved by this procedure, and a threatened laparotomy is avoided. As an anodyne in these cases he prefers chloroform in one to two dram doses in sweet milk, claiming that its carminative action lessens hiccough and tympanites, and does not intensify vomiting as does morphine, and while it does not increase intestinal impaction, it is equally efficient in preventing increased invagination. The fact that its effect is more transitory he regards as also in its favor, for it does not so mask the symptoms and unnecessarily delay an unavoidable laparotomy. Cases of recurrent *follicular tonsillitis*, due to exacerbations of a *chronic tonsillitis*, are exceedingly annoying to the physician and damaging to the patient's health. DR. A. S. MOXSON, of Milton Junction, Wis., claims to cure this class of cases by cauterizing the tonsillar lacunae with solid nitrate of silver.<sup>5</sup> He takes a doubled piece of silver wire, such as is used for sutures, and solders its free ends to a large wire. The loop is dipped into melted nitrate of silver and withdrawn, carrying a small band with it. The silver wire is bent half an inch from the distal end and at an angle of 45 degrees. The band is inserted to the bottom of each follicle, one caustic band usually sufficing for one or two follicles. It usually requires about two sittings to cauterize all the follicles. He has used this method for from eight to ten years, and found it reliable. "I know of no case," he says, "that has not been given a very complete immunity even when subject to attacks every two to eight weeks, before the treatment. Those who have *inoperable cancers* of the uterus on hand, may try DR. AIME GUINARD'S

<sup>4</sup> International Journal of Surgery, October '96.

<sup>5</sup> Journal Practical Medicine, December '96.

carbide of calcium treatment.<sup>6</sup> The carbide of calcium, as we of course remember, brought into contact with water, becomes converted into quick-lime and a carbide of hydrogen, acetylene gas. The method is simple. A piece of carbide of calcium, about the size of an ordinary marble, is applied to the neoplasm and the vagina packed with iodoform gauze. After three or four days the gauze is removed and the vagina is douched with a bichloride solution 1 to 1000. Most of the oxide of calcium is washed away as a grayish powder, but a few pieces may be found incrusting on the neoplasm, which must be detached with a blunt instrument or with the finger. It is now apparent that the appearance of the diseased part has changed. Exuberant granulations have fallen off and the surface is covered with a grayish membrane. After the vagina is dried, a fresh piece of the carbide is inserted and packed on as before. Under this treatment hemorrhage, fetid discharge and pain are suppressed. If the inoperable cancer be otherwheres, or carbide of calcium be unobtainable, the practitioner may prefer to try the salicylic acid treatment stumbled onto by DR. THOS. H. HAWKINS, of Denver. He tells the story as follows:<sup>7</sup> "I diagnosed cancer of the stomach, one week later an incision was made over the stomach and the diagnosis was confirmed. Fully one-half of the stomach, principally along the lesser curvature, was covered by hard, nodular masses. I attempted to resect the central portion of the stomach" (*cui bono?*), "but, after making incisions into this organ to the extent of about ten inches, I decided that it would be practically impossible to complete the operation, and so proceeded to close up the gastric opening after washing and cleansing the sac. The opening into the abdomen was closed by sutures. Except the slight amount of vomiting, the patient experienced no very great inconvenience from the operation, and two weeks later left the hospital, feeling, she thought, very much better. Two weeks later I visited the patient at her home and found that the upper end of the stomach incision was evidently being affected by the growth in fact the wound had gaped and my finger passed readily into the breach and could feel the nodular mass below. There was quite a discharge from the external opening. I ordered the wound to be filled with salicylic acid and covered with sterilized gauze, this dressing to be changed every second day. At the same time I prescribed ten grain doses of salicylic acid, dry, in capsules, to be given four times a day. At the time this treatment was instituted, the patient was unable to digest her food and experienced constant pain, which was greatly aggravated when either liquids or solids were introduced into the stomach.

<sup>6</sup> Sem. Medical, 1896, No. 18.

<sup>7</sup> Gross. Med. Coll. Bull., March, '96

Four weeks later found her suffering very much diminished. The opening through the abdominal wall down to the stomach looked healthy and was granulating, healing up. She was able to take a moderate amount of food, and with very slight distress. To-day, a little more than seven months since the treatment was commenced, the opening in the abdominal wall has entirely healed, and the patient says she is feeling in as good health as for years. She eats ordinary table victuals and still takes forty grains of salicylic acid daily. Upon physical examination, I cannot be sure whether I feel any thickening or enlargement about the stomach or not." In this case, the diagnosis was confirmed by microscopic examination. DR. HAWKINS reports another case of cancer of the uterus, where he followed curetting by persistent application of salicylic acid in large quantities to the diseased surface. After six months he reports, "The patient has gained in flesh; is quite free from pain; the diseased condition has almost entirely disappeared from the vagina; the uterus, which from the disease and curettement had been scooped out until little more than the fundus was left, has granulated, contracted and is entirely healed. There is no tenderness, no hemorrhage, and the patient says she was never in better health in her life." Doubtless before many seasons we shall know whether the flattering results claimed for these remedies may be counted on in a fair percentage of the cases, or whether, as in case of the treatment with pyoctanin, or with erysipelas toxins, our hopes are roused again only to meet with one more disappointment. The problem of *hypodermic quinin* is one over which the pharmacist and the physician have puzzled for years without any very satisfactory result. Those salts of quinin which were free from annoying after effects were too insoluble for effective use with the hypodermic syringe, and those which were freely soluble were altogether too apt to be followed by persistent and annoying abscesses. DR. ALEX. K. FINLAY, of New Orleans, however, finds that the *sulpho-vinate* or *ethyl-sulphate of quinin* fulfills both indications fairly well.\* Its quinin strength is about equal to that of the sulphate. It requires but three parts of water for solution, so that an ordinary hypodermic syringe will hold ten grains dissolved; gentle warming dissolves the crystals in a few seconds, and the solution will keep indefinitely, especially when a small proportion of alcohol is added.

L. B. T.



## New Books.

### REFERENCE BOOK OF PRACTICAL THERAPEUTICS. By Various Authors.

Edited by Frank P. Foster, M. D., Editor of the New York Medical Journal and of Foster's Encyclopedic Medical Dictionary. Published by D. Appleton and Company, New York, 1896. In two volumes, 8vo. Prices, cloth, \$5.00; sheep, \$6.00; half morocco, \$6.50 per volume. Sold by subscription only. W. W. Dodsworth, Agent, 217 Perry St., Cleveland.

The first volume of this work is now in the market. It contains 652 large double-columned pages, extending from "A to Myrtol," being alphabetically arranged. Not only drugs are treated of, but all such subjects as alimentation, both in health and disease; baths, including vapor, hot air and medicated baths, hydratics, the application of water in other ways for the cure and relief of disease, the use of mineral waters, massage, exercise and its effects on the physiological functions and on the muscular and bony systems; electricity, hypnotism, climatic treatment, in short, all the various resources for preventing, relieving or curing disease.

Very little space is devoted to chemical or botanical descriptions, or experimental toxicology—but the diagnosis and treatment of the different forms of poisoning are given in full. Also indications, contra-indications, incompatibilities, doses etc. It might very appropriately have been entitled "Applied Therapeutics." In handling proprietary preparations and new remedies, good common sense has been used. Not all the remedies which are proprietary have been excluded. Some of these have been found valuable and are extensively used by the profession, and one must know something about them. There seems to be no good reason for excluding from discussion in a book, articles which are practically accepted by the mass of the profession. But unless the drug has been practically accepted by the profession, it is not found in this book; just as one finds under the subject of serum therapy, that the theories and speculations and hopes of its advocates have not been included in the discussion. Only accepted facts have been admitted. Each article is signed by the writer, excepting the short ones by the editor. The editor's notes and interpolations are in brackets.

Dr. Foster has evidently taken advantage of his editorial experience in selecting his collaborators, and assigning the subjects. The list of contributors to Volume I. is as follows: Joseph A. Andrews, M. D., Samuel Treat Armstrong, M. D., Ph. D., Samuel M. Brickner, A. M., M. D., Edward Bennet Bronson, M. D., Henry H. Burchard, M. D., D. D. S., G. Gordon Campbell, B. Sc., M. D., J. Leonard Corning, M. D., Floyd M. Crandall, M. D., Mary Gage Day, M. D., Charles Dennison, M. D., George Dock, A

M., M. D., Jeremiah T. Eskridge, M. D., Matthias Lankton Foster, M. D., Arpad G. Gerster, M. D., Henry A. Griffin, M. D., Lucien Howe, M. D., M. R. C. S. Eng., Chas. Jewett, A. M., M. D., Sc. D., Howard Lilienthal, M. D., Russell H. Nevin, M. D., Austin O'Malley, M. D., Ph. D., LL. D., William K. Otis, M. D., Edward R. Palmer, M. D., Frederick Peterson, M. D., Samuel O. L. Potter, A. M., M. D., M. R. C. P., Charles Rice, Ph. D., Phar. M., George H. Rohe, M. D., D. E. Talmon, D. V. M., A. Alexander Smith, M. D., Solomon Solis-Cohen, M. D., Henry Ting Taylor, M. D., Benjamin F. Westbrook, M. D., James T. Whittaker, M. D., John A. Wyeth, M. D.

The cross references are excellent. The work is indeed a very complete and convenient "reference book" on Therapeutics.

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A TREATISE ON SURGERY. By American Authors. Edited by Roswell Park, A. M., M. D. Vol. II. Special or Regional Surgery. With 451 engravings and 17 full page plates in colors and monochrome. Lea Bros. & Co., Philadelphia and New York. 1896. Price, cloth, \$4.50; leather, \$5.50; net.

A notice of the first volume of this admirable work may be found in the October number of the *GAZETTE*. The second volume is fully up to the standard of the first, and we venture to predict will be in even greater demand. It involves the more practical side of the subject, and an inspection of the list of collaborators will induce any one acquainted with the surgical writers of this country and their eminent fitness, to believe that he ought to possess the book. The volumes can be bought separately, but whoever buys one will be pretty certain to conclude that he wants the other also. The first chapter is by Dr. Park himself on Injuries and Surgical Diseases of the Head.

The chapters on Chancroid or Venereal Ulcer, and on Skiagraphy, are also by Dr. Park. Surgical Diseases and Injuries of the Spine, is by Edward H. Bradford, M. D., and the chapter entitled Surgical Diseases and Injuries of the Heart and Pericardium, with Surgery of the Larger Blood Vessels and Ligations, is written by Dr. Duncan Eve. Dr. Bryson Delavan has the article on Diseases and Injuries of the Respiratory Organs, while those of the Face are treated in two chapters by Dr. Edmond Souchon. Surgery of the Chest is by Frederick L. Dennis, M. D., Surgical Diseases and Injuries of the Mouth, Tongue, Teeth and Jaws, by Arthur Dean Bevan, M. D.

Dr. Maurice H. Richardson has been assisted by Dr. Farrar Cobb in preparing the chapter on Surgery of the Abdomen, and Dr. Richardson alone has considered Hernia. Diseases of the Rectum and Sigmoid Flexure were entrusted to Dr. Charles B. Kelsey; Genito-Urinary Surgery de-

volved upon Dr. Wm. T. Bellfield. Surgical Diseases and Injuries of the Female Reproductive Organs demanded a separate chapter, and this is given by James H. Etheridge, M. D.

Surgical Diseases and Injuries of the Breast are handled by Dr. Charles B. Parker, Amputations by Dr. Rudolph Matas, Orthopedic Surgery by Dr. Robert W. Lovett, and Plastic Surgery by Dr. Arpad G. Gerster; Surgical Diseases and Injuries of the Eye and Orbit, by Dr. Charles Stedman Bull, and of the Ear, by Clarence J. Blake, M. D.

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A SOJOURN AMONG THE OCULISTS OF EUROPE. By Flavel B. Tiffany, M. D., Kansas City, Mo., 1896.

This beautiful little souvenir book of reminiscences of a tour abroad, will strike a responsive chord in the mind of every oculist who has had the pleasure of a visit to the various Ophthalmic Clinics of Europe. Any one of the excellent portraits of eminent European confreres is well worth the price of the book. It was a happy thought of Dr. Tiffany's, artistically executed.

A. R. BAKER.

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ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By Arthur M. Corwin, A. M., M. D., Demonstrator of Physical Diagnosis in Rush Medical College etc., etc. Second edition, revised and enlarged. Philadelphia: W. B. Saunders. 1896. 193 pages. Price, cloth, \$1.25, net.

This little book has grown out of the author's experience as a teacher; and while it presents nothing new in principle, it presents the old facts newly grouped in a way very intelligible and attractive to the student. It is illustrated by cuts and diagrams, and the systematic tabular arrangement and the use of different kinds of type make it very clear and at the same time impress the memory. There are cuts showing the author's double and multiple stethoscope by which teacher and pupil, or teacher and a half dozen pupils can all examine the same spot and hear the same sound at the same time. We can heartily recommend this little book.

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TEACHER'S MANUAL OF PHYSICAL EDUCATION FOR THE CLEVELAND PUBLIC SCHOOLS, for 1896 and 1897. By L. K. Baker. 40 pages. Stiff paper cover.

This little manual begins with a very complimentary reference to Vol. I. of the report for 1891-1892 of W. T. Harris, Commissioner of Education, which report can be obtained gratis upon application at Washington, D. C. The

report is duly credited for the historical sketch of physical training which then follows. The Rationale of Modern Physical Education is next discussed, showing the objects aimed at, and the reasons for combining the various exercises in certain "order of movements." "Dressings and Facings" are given in the next section, followed by a summary of the classes of exercises in each series of movements. Then follow sections on "Enthusiasm" and "Vanity." Lastly there is a chapter on school games and athletics, giving rules for a number of games, without or with simple apparatus. The manual is well adapted to enlist the interest of the teacher in the work of physical education and also furnishes the lessons or drills in the order which should be followed.

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#### PAMPHLETS RECEIVED.

Almost any of the pamphlets mentioned here may be had by sending a request to the author, not forgetting to enclose a stamp.

**PUERPERAL ECLAMPSIA AND VERATRUM VIRIDE AS AN AGENT IN ITS TREATMENT.** By M. M. Bauer, M. D., Lake, O.

**PRACTICAL PSYCHIATRY.** By Dr. Eugene G. Carpenter, Consulting Neurologist to the City Hospital, Cleveland. From *Cleveland Journal of Medicine*.

**AN EPIDEMIC OF GLANDULAR FEVER.** By J. Park West, M. D., Belaire, O.

**DESCRIPTION OF A FEW OF THE RARER COMPLICATIONS OCCURRING DURING AND FOLLOWING CATARACT EXTRACTION.** By Charles A. Oliver, A. M., M. D. One of the attending surgeons to the Will's Eye Hospital etc., Philadelphia, Pa. From *Archives of Ophthalmology*.

**ANTERIOR SOFT HYPERTROPHIES OF THE NASAL SEPTUM.** By Edwin Pynchon, M. D., Chicago, Ill. From *The Laryngoscope*.

**SOLUTIONS DOBELLE.** By Edwin Pynchon, M. D., Instructor in Rhinology and Laryngology, Chicago Post Graduate Medical School. Attending Surgeon for Diseases of the Ear, Nose and Throat. Dispensary of Illinois Medical College etc. From *Annals of Ophthalmology and Otology*.

**THE OPERATIVE TREATMENT OF CLEFT PALATE.** By Edmund Owen, F. R. C. S. Eng.

**WEITERE UNTERSUCHUNGEN UEBER DERMATITIS HIEMALIS.** Von William Thomas Corlett, M. D., Cleveland, U. S. A. Sonder-abdruck aus *Monatshefte f. Praktische Dermatologie*.

**REMARKS ON THE CAUSES OF GLAUCOMA.** By Leartus Connor, A. M., M. D., Detroit, Mich. From *Journal American Medical Association*.

## Society Reports.

### THE CLEVELAND MEDICAL SOCIETY.

*Regular Meeting, December 18, 1896.*

The benefits and instruction to be gained by the medical profession from the quarterly meetings of this society cannot be over estimated. Men occupying the highest positions of responsibility and learning visit our city on these occasions, and pour out the gifts of thought and research only to be gained in their departments of medical service. The meeting of December 18th was of unusual interest, as it dealt with the subject of "National Health Institutions."

DR. WALTER WYMAN, Surgeon General of the United States Marine Hospital service and *ex-officio* health official of the United States government, addressed a large body of physicians and members of the Chamber of Commerce of Cleveland, upon the methods adopted by the bureau over which he has control.

The work of marine hospitals was reviewed in a general way to set forth the character and scope of this department, which does so much for the sailors of our merchant marine vessels. Hospitals and relief stations are established at suitable places all over the United States, where sailors make a home during sickness and receive the best of medical and surgical aid. Every pilot of American vessels on our sea-board, lakes and navigable rivers is tested for color-blindness, candidates for the life-saving service are examined as to their fitness for the work, and suspected vessels are held in quarantine until thoroughly investigated and given a clean certificate of health for those on board.

Immigrants are examined before landing in this country, and an effort is now being made to secure legislation requiring the examination of all immigrants in foreign ports before they set sail for the United States.

Congressman Burton of this city introduced the measure, and it is heartily approved by Surgeon General Wyman. The matter is being urged upon the committees of Congress by Dr. L. B. Tuckerman and others on behalf of our local and state societies.

As this government has no national board of health, the work of such a body devolves largely upon the Surgeon General and his corps of assistants in charge of hospitals and relief stations. Recently a careful study of the origin and modes of importation of foreign-bred diseases has been made, especially as to the four leading epidemic diseases, cholera, yellow fever, small pox and the plague. Epidemics of such diseases can, in nearly every instance, be traced to some foreign port for their origin.

Of the nineteen epidemics of yellow fever reaching the shores of the United States since 1864, sixteen of them can be traced directly to the city of Havana. The Surgeon General has communicated the facts in this matter to the Secretary of the Treasury of the United States, and the Secretary has written to the Spanish government officials, asking that steps be taken by them to rid the port of Havana of its dangers in this direction, which may probably be effected by proper drainage and other hygienic measures.

The address of DR. WYMAN was most interesting from start to finish, and an opportunity was given for all to meet him at the informal reception immediately following the lecture.

DOCTOR WYMAN has held important positions in the Marine Hospital service for a number of years, and among his stations were those of Cincinnati, Baltimore and New York. He has risen rapidly to the honorable position he now holds, and is to be congratulated upon the excellent work being done by his branch of the public service.

A vote of thanks was unanimously extended by the society to Surgeon General Wyman for his much valued address.

C. W. S.

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CUYAHOGA COUNTY MEDICAL SOCIETY.

*Regular Meeting, January 7, 1897.*

The President, DR. O. B. CAMPBELL, presided. Upon the recommendation of the Trustees, to whom the matter had been referred at the previous meeting, action was taken authorizing subscription to the capital stock of the Cleveland Academy of Science, and the appointment of trustees to hold the stock. The trustees so appointed were Dr. O. B. Campbell, Dr. A. R. Baker, Dr. L. B. Tuckerman and Dr. Geo. W. Crile.

DR. H. E. HANDERSON presented "Cleveland in the Census," giving interesting deductions from the various reports, especially with regard to sex, race and nativity in the population at different periods.

A number of charts served to illustrate the facts presented.

DR. GEORGE W. CRILE read the following paper on "A New Method for Removal of Powder Grains from the Skin."

Dr. Porter, of Boston, was the first, I believe, to recommend anesthetizing the patient and scrubbing with a brush, thereby quite readily forcibly dislodging at least the more superficial grains. After some days have elapsed when the grains become firmly imbedded, this method does not promise so much. Picking and dissecting out individual grains

with ordinary instruments or those specially designed, is very tedious, quite painful, yet probably the best way after other means have been tried.

The method I have used with very satisfying results, consists in the application of peroxide of hydrogen in rather concentrated solution. There will very soon appear a bubbling around the grains, and a white zone is displayed around and under them. The application should be continued until bubbling has fairly ceased when it will be observed that the grain has been freed from its bed of exudation and may be removed by a pointed instrument, or better by means of the scrubbing according to the method of Dr. Porter. The presence of the grain of powder in living tissue causes an exudation around it, and so adheres closely to its bed of exudate. The peroxide decomposes the exudation, hence frees the grain so that it may be readily removed.

DR. A. R. BAKER, in the discussion, said that, at the suggestion of Dr. Crile, he had begun the use of the method several years before. He had found it valuable for removing powder grains from the skin, but not from either the conjunctiva or the cornea. They are best removed from the cornea by digging out, and from the conjunctiva by grasping the conjunctiva together with the powder grain beneath by means of a pair of fine forceps and snipping off with scissors, removing the particle of conjunctiva as well as the powder.

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### Correspondence.

CLARKSFIELD, O., December 24, 1896.

*Editor Cleveland Medical Gazette:*

DEAR DOCTOR:—In looking over the files of the *Medical World* I notice so many M. D.'s use ergot during earlier stages of labor. Do you consider that safe practice? I never gave it before delivery except once in twins, and it was no good then.

I carry a head mirror in my pocket and find it extremely handy in examining the throat, mouth etc., in patients in bed. The nurse holds the lamp and I hold the mirror in one hand and a teaspoon (to depress the tongue) in the other, and I find it beats any other way I have tried. No getting the patient up or holding a lamp to dazzle my eyes. When I have to buy a new mirror I will buy one of Sardy & Coles, which has a folding case for mirror.

I had an experience with prolapsus uteri (complete) in an old lady a few years ago which was somewhat unique. She was quite a fleshy lady and very clumsy, and walked

on crutches on account of a hip injury. I used something like half a dozen varieties of pessaries—rubber balls, inflated ring, cutters (with belt) etc., but finally cured her with Hoffman's Anatomical, soft rubber, large size. I was sometimes obliged to insert it every day or two, then it would stay for two or three weeks, and once it was supposed to be lost, but made its appearance in due time. It was gratifying to see the changed condition the pessary caused in the supporting tissues.

At first I could pretty nearly throw it in, but at last I had to double it together and work quite a while. But the interesting part was that it did not seem to make any difference how it stood after insertion, bottom side up or sideways. It had four prongs to it and some of them would catch somewhere. The pelvis in this case was very roomy.

The neatest confinement case I ever had was one I will detail. It was a well built, equable tempered primipara, with no foolishness about her. I reached the house (5 miles away) in good season to arrange the bed my way. I put a flour sack (cut open) on the mattress, then a quilt, then a clean sheet, then a sheet folded into quarter size, then the patient dressed for bed with the clothes tucked well up to the shoulders. This arrangement occupied only the *front half of the bed*. A similar arrangement in regard to paper (or oilcloth) quilt, sheet etc., occupied the other side of the bed (which stood in the center of the room). The patient lay upon her side, back to front of bed, toward the last and I had a peep hole under the covers so as to watch progress. Everything normal. I could see the head distend the perineum, which, although I supported it, became thinner and thinner, like paper finally, when, rip—and it disappeared like a stretched rubber dam when it tears, and out came the head. The rent must have been three inches long as the perineum was stretched, but was not enough to require attention afterward. It showed the elasticity of the perineum most beautifully. Placenta was delivered by expression and gentle traction on the cord. When the patient was rested, the baby washed and the patient's genitals washed with creolin solution, she was rolled over onto the clean side of the bed, the soiled bedding removed, and there she was, ready for a rest. The wrinkle is to have the patient use only one-half of the bed when possible, so as not to make so much trouble in cleaning up.

I rarely use vaginal post partem injections. Do you believe in them?

Do you not find that chloroform frequently checks the uterine contractions?

If you are bored with this, don't read it, but it may be like the man who walked across a wheat field in the spring when very muddy. When he came out near the road, the



owner chided him for walking across the field when so soft. He said "Well, I suppose I should not have done so and will go back," and back he went, the way he came.

Yours truly,

F. E. WEEKS.

## **Notes and Comments.**

**The Proposed Anti-Vivisection Legislation for the District of Columbia.**—We have been asked to publish the following, and very cheerfully comply: The American Association of Obstetricians and Gynecologists, assembled in annual session in Richmond, Va., Sept. 22 to 24, 1896, desired to present to the Congress of the United States a protest against the passage of Senate Bill 1552.

*Whereas*, The enactment into law of the specified bill would greatly interfere with and retard the investigations that are at present being conducted at Washington in the laboratories connected with the Marine Hospital service, the offices of the Surgeon-General of the United States Army and Navy, and the Bureau of Animal Industry of the Department of Agriculture, and

*Whereas*, The results of their investigations have been of immense importance to the health and wealth of the people of the country, and

*Whereas*, More brilliant results are promised for the near future in connection with preventive medicine and the health of man and animals; therefore, be it

*Resolved*, That this Association protests against the proposed legislation by Congress which has for its object the restriction of animal experimentation in the District of Columbia, and, while opposing needless cruelty and experiments upon animals in the public schools, this Association considers that those who are trained in the special line of research necessary for the conduct of the work referred to are the ones best able to decide upon the advisability and utility of animal experimentation, and should not be hindered in the prosecution of their humane work; further

*Resolved*, That a copy of these resolutions be sent to the members of the House and Senate of the United States Congress, and also to the President of the United States.

**To Exclude Reporters.**—Owing to the frequent appearance in the lay press of illustrations drawn from life of patients being operated upon in the ward of the Receiving Hospital, San Francisco, it has been decided (*American Medico-Surgical Bulletin*) to exclude reporters, newspaper artists, and others not connected with the hospital staff. This action

was based upon consideration of the ethical side of the matter, as well as the propriety of subjecting patients to the scrutiny of the public, and the decision was unanimous.

**The Power of the Medical Profession from a Political Standpoint.**—From the days of Washington to the present time, says *The New York State Medical Reporter*, the legal profession has assumed to rule the politics of the United States from the office of chief executive down to the least important position. There is no reason why the legal profession should control the politics of the United States, and there is no reason why the medical profession should not control it.

They are eminently better fitted than many of the legal profession, who through their iron-clad combinations win the day in every political contest.

Since the days of Alexander the Great every one who has made a study of the methods of Alexander appreciates thoroughly the value of combinations, for had it not been for the combining forces, his name would have perished with his death. He won conquest after conquest until he conquered the world.

His forces, being under strict military organization, defeated opponents of ten times greater numbers.

It is upon this very principle that the legal profession has worked and it is this principle which will keep them in power so long as the United States continue to exist. There are probably as many physicians in the United States as there are lawyers, and if every member of the medical profession would throw individual politics and pathisms to the winds, they could, no doubt, control politics to an extent that would gain for them what they need, and what the public at large need in the way of hygienic measures. What do members of the legal profession know of the needs of the public?

They know nothing of them. Their time is occupied in maintaining their positions and they have but little time at their disposal to look into the various matters which threaten the world in connection with diseases. We need a physician to occupy the presidential chair. We need a senate composed of a proper number of physicians. We need a house of representatives composed of a sufficient number of physicians to assist the chief executive in bringing about proper legislation to control contagious diseases. The 125,000 physicians in the United States combined could overcome the most powerful opponents, and all that is necessary, as above stated, is the ironclad combination.

Physicians, by virtue of their education and the relations they occupy with families, can each control more votes five times over than the same number of lawyers. When the medical profession does come to appreciate its power, the legal profession may say good-bye to the monarchical authority which it has exercised for so many years.

The government of the United States is supposed to be operated under conditions of a free constitution, but until there is a break in the political organizations which now control the government, there will be no such thing as a free country, and many of the greatest difficulties involved can be relieved only by placing the medical profession in authority.

**Exophthalmic Goitre.**—At the French Surgical Congress held in Paris in October, says the Paris correspondent of *Medical News*, Dr. Jonnesco, of Bucharest, reported two cases of removal of the cervical sympathetic from the superior to the inferior ganglion, inclusive, for exophthalmic goitre. In both cases there was immediate amelioration of all the symptoms, and no physiological symptoms were caused by the removal.

**The Western Ophthalmological, Otological, Laryngological and Rhinological Association**, is to meet in St. Louis on the second Thursday and Friday of April, 1896. Physicians desiring to read papers are invited to send their subjects at once to the Secretary. Railroads will give transportation at one and one-third fares on the certificate plan. Dr. Adolf Alt, of St. Louis, is President this year; Dr. W. L. Dayton, of Lincoln, Neb., Treasurer, and Dr. Hal Foster, of Kansas City, Secretary.

✓ **Dr. C. W. McElhancey** has removed from Doylestown, O., to Greenville, Pa., his former home.

**Dr. Thomas Moore Madden** has received from the Royal University of Ireland the Honorary Degree of Master of Obstetrics.—“M. A. O. Honoris Causa.”

✓ **Dr. Rosa Lee Oxer**, (Class of '95, Wooster Medical College) has gone to India as a medical missionary under the auspices of the Disciple denomination.

**The Morals of a Surgeon.**—“What a man does is the proof to the world of what a man is,” says a recent issue of *The Hospital*.

Many good people fear that the advance of science will bring about the retrogression of morals and religion.

We do not agree with them. But if they cannot accept our judgment, let them weigh well a fact like this:

Mr Jonathan Hutchinson, F. R. S., and ex-president of the Royal College of Surgeons, addressed his professional brethren assembled in annual congress the other day, and he thus spoke: “I bore with equanimity as I could the discovery that I could not compete with my friend in the ratio of successes obtained” (In operations for ovariectomy). “and, acting on the rule of conduct that I would never keep a patient in my own hands if I believed that some one else

could do what was needed with greater prospect of success, I gave up doing ovariectomies, both in public and in private, and used to transfer my patients from the London to the Samaritan Hospital." Here is a rule of conduct which has never been excelled in moral worth in any department of professional life or private behavior. A most far-reaching and truly noble rule is this of Mr. Jonathan Hutchinson's; and the fact that he announced it toward the close of his career, in the hearing of hundreds of his professional brethren, who are almost as familiar as he is himself with the conduct of his professional life, is proof that he spoke mere truth.

If these are the morals of men may we not say of men of all professions and callings, "*O ei sic omnes!*"

**E Sedecim Unum.**—A man with a purple nose was fishing for porgies off South-street wharf last Saturday and suddenly fell into the water. A fellow-fisherman of benevolent aspect promptly hauled him out, laid him on his back, and then began to scratch his head in a puzzled way. "What's the matter?" asked the excited bystander. "Why don't you revive him?" "There are 16 rules to revive drowned persons," said the benevolent man, "and I know 'em all, but I can't just call to mind which comes first." At this point the drowned man opened his eyes and said faintly: "Is there anything about giving brandy in the rules?" "Yes." "Then never mind the other 15." —*Philadelphia Call.*

**Had he taken anything?**—"Have you taken anything for your trouble?" asked the doctor of a long, lank, hungry-looking man, who came to him, complaining of being "all run down," so that he didn't seem to be "no manner o' correct," his appearance verifying his words.

"Well, I ain't been taken much of anything, Dock; that is, nothing to speak of. I tuk a couple o' bottles o' Pinkham's bitters a while back, an' a bottle of Quackem's invigorator, with a couple o' boxes o' Curem's pills, and a lot o' quinine and some root bitters my old woman fixed up. I've got a porous plaster on my back, an' a liver pad on, an' I'm wearing an 'lectric belt, an' takin' red clover four times a day, with a dose or two o' salts ev'ry other day; 'ceptin' for that I ain't taken notin.'" —*Munsey's Weekly.*

Might try X-rays or donkey secum.

**The International Medical Journal** is reported to be almost ready to be issued. This will be the fifteenth yearly issue, and we think most readers will agree that it has been growing better every year until now there is no better annual published. E. B. Neal, the publisher, is to be congratulated on the success of this venture. The

subscriber will congratulate himself when he sees what he has bought for two dollars and seventy-five cents. Space does not allow even an enumeration of the editors, more than forty in number, with a list of the departments in which they have labored, but the reader will not have long to wait until he can get a copy of his own.

**Anomalies and Curiosities of Medicine.**—This is the title of a new book announced by Mr. W. B. Saunders, to be published in the near future. It promises to be an encyclopedic collection of rare and extraordinary cases, and of the most striking instances of abnormality in all branches of medicine and surgery, derived from exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated and indexed.

The authors are George M. Gould, A. M., M. D. and Walter L. Pyle, A. M., M. D. The following synopsis of chapters will give some idea of the scope of the work.

It will contain nearly one thousand pages, octavo, and be illustrated. I. Genetic Anomalies. II. Prenatal Anomalies. III. Obstetric Anomalies. IV. Prolificity. V. Major Terata. VI. Minor Terata. VII. Anomalies of Stature, Size, and Development. VIII. Longevity. IX. Physiologic and Functional Anomalies. X. Surgical Anomalies of the Head and Neck. XI. Surgical Anomalies of the Extremities. XII. Surgical Anomalies of the Thorax and Abdomen. XIII. Surgical Anomalies of the Genitourinary Tract. XIV. Miscellaneous Surgical Anomalies. XV. Anomalous Types and Instances of Disease. XVI. Anomalous Skin Diseases. XVII. Anomalous Nervous and Mental Diseases. XVIII. Historic Epidemics.

**The Best Beef Tea She Ever Had.**—A physician prescribed beef tea for a patient, giving the following directions: Inclose the finely chopped meat in a glass bottle, then boil by placing the whole in a pot of water. The directions were carried out as far as the boiling the bottle of meat in the pot of water was concerned, but instead of the mixing the finely chopped meat with the water, this lady gave the sick person the hot water in which the bottle was boiled, who said that she had not tasted anything so good for a long time.

According to Fothergill's idea of beef tea as generally made, the patient received about as much nourishment from the water as she would have from the tea. A lady of our acquaintance who believes in anything which smacks of homeopathy, used this diet when recovering from an illness. She had an egg boiled in water, the water *strained* and used the water for food.

**The Birth and Death of Pain.**—This beautiful poem was read by Dr. S. Weir Mitchel, on October 16, 1896, at the Commemoration of the Fiftieth Anniversary of the First Public Demonstration of Surgical Anesthesia. We are indebted for a copy to the *Boston Medical and Surgical Journal*.

Forgive a moment, if a friend's regret,  
 Delay the task your honoring kindness set.  
 I miss one face to all men ever dear;  
 I miss one voice that all men loved to hear.  
 How glad were I to sit with you apart  
 Could the dead master use his higher art  
 To lift on wings of ever lightsome mirth  
 The burdened muse above the dust of earth,  
 To stamp with jests the heavy ore of thought,  
 To give a day, with proud remembrance fraught,  
 The vital pathos of that Holmes-spun art  
 Which knew so well to reach the common heart.  
 Alas! for me, for you, that fatal hour!  
 Gone is the master! Ah! not mine the power  
 To gild with jests, that almost win a tear,  
 The thronging memories that are with us here.

The Birth of Pain! Let centuries roll away;  
 Come back with me to nature's primal day.  
 What mighty forces pledged the dust to life!  
 What awful will decreed its silent strife!  
 Till through vast ages rose on hill and plain  
 Life's saddest voice, the birth-right wail of pain  
 The keener sense, and ever growing mind,  
 Served but to add a torment twice refined,  
 As life, more tender, as it grew more sweet,  
 The cruel links of sorrow found complete  
 When yearning love to conscious pity grown  
 Felt the mad pain thrills, that were not its own.

What will implacable, beyond our ken,  
 Set this stern fiat for the tribes of men!  
 This, none shall 'scape, who share our human fates:  
 One stern democracy of anguish waits  
 By poor men's cots—within the rich man's gates.  
 What purpose hath it? Nay, thy guest is vain:  
 Earth hath no answer: If the baffled brain  
 Cries, 'tis to warn, to punish—Ah, refrain!  
 When writhes the child, beneath the surgeon's hand,  
 What soul shall hope that pain to understand?  
 Lo! Science falters o'er the hopeless task,  
 And Love and Faith in vain an answer ask,  
 When thrilling nerves demand what good is wrought  
 Where torture clogs the very source of thought.  
 Lo! Mercy ever broadening down the years  
 Seeks but to count a lessening sum of tears.

The rack is—the torture chamber lies  
 A sorry show for shuddering tourists' eyes.  
 How useless pain, both Church and State have learned  
 Since the last witch, or patient martyr burned.  
 Yet still, forever, he who strove to gain  
 By swift despatch a shorter lease for pain  
 Saw the grim theatre, and 'neath his knife  
 Felt the keen torture, in the quivering life.  
 A word for him who, silent, grave, serene,  
 The thought stirred master of that tragic scene,  
 Recorded pity through the hand of skill,  
 Heard not a cry, but, ever conscious, still.

In mercy merciless, swift, bold intent,  
 Felt the slow moments that in torture went  
 While 'neath his touch, as none to-day has seen,  
 In anguish shook life's agonized machine.  
 The task is o'er; the precious blood is stayed;  
 But double price the hour of tension paid.  
 A pitying hand is on the sufferer's brow—  
 "Thank God 'tis over." Few who face me now  
 Recall this memory, let the curtain fall,  
 Far gladder days shall know this storied hall!

Though Science patient as the fruitful years,  
 Still taught our art to close some fount of tears,  
 Yet who that served this sacred home of pain  
 Could e'er have dreamed one scarce-imagined gain,  
 Or hoped a day would bring his fearful art  
 No need to steel the ever kindly heart.

So fled the years! While haply here or there,  
 Some trust delusive left the old despair;  
 Some comet thought—flashed fitful through the night,  
 No lasting record, and no constant light.  
 Then radiant morning broke, and ampler hope  
 To art and science gave illumined scope,  
 What Angel bore the Christ-like gift inspired  
 What love divine with noblest courage fired  
 One eager soul that paid in bitter tears  
 For the glad helping of unnumbered fears,  
 From the strange record of creation tore  
 The sentence sad, each sorrowing mother bore  
 Struck from the roll of pangs one awful sum,  
 Made pain a dream, and suffering gently dumb!

Whatever triumphs still shall hold the mind,  
 Whatever gifts shall yet enrich mankind,  
 Ah! here, no hours shall strike through all the years,  
 No hour as sweet, as when hope, doubt and fears,  
 'Mid deepening stillness, watched one eager brain,  
 With God-like will, decree the Death of Pain.

How did we think him? Ah! no joy-bells rang,  
 No pæans greeted, and no poet sang,  
 No cannon thundered, from the guarded strand  
 This mighty victory to a grateful land!  
 We took the gift, so humbly, simply given,  
 And coldly selfish—left our debt to Heaven.  
 How shall we thank him? Hush! a gladder hour  
 Has struck for him; a wiser  
 Shall know full well how fitly to reward  
 The generous soul, that found the world so hard.

Oh! fruitful Mother—you, whose thronging states,  
 Shall deal not vainly with man's changing fates,  
 Of freeborn thought, or war's heroic deeds  
 Much have your proud hands given, but nought exceeds  
 This Heaven-sent answer to the cry of prayer,  
 This priceless gift which all mankind may share.

A solemn hour for such as gravely pause  
 To note the process of creation's laws!  
 Ah, surely, he, whose dark, unfathomed mind  
 With prescient thought, the scheme of life designed,  
 Who bade His highest creature slowly rise,  
 Spurred by sad needs, and lured by many a prize,  
 Saw, with a God's pure joy, His ripening plan,  
 His highest mercy brought by man to man.

## Selections.

### HYDROZONE IN GASTRIC AND INTESTINAL DISORDERS.

A period of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing practically every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned, although, in view of the fact that hydrozone is a more concentrated product, and withal a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medicinal peroxide of hydrogen.

In gastritis, either acute, subacute, or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased output of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objec-



### *Selections.*

tionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted hydrozone (one to thirty-two) and lie on the right side so as to facilitate the action of the stomach in discharging its contents.\* The antiseptic properties of hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach in a healthy condition for the absorption of nutritive pabulum. All forms of fermentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later, small portions of solid food can be ingested, but all food stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch granules, breaking them up, and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contain, in addition to the nascent oxygen contained in hydrozone, a percentage of glycerin which favors osmosis and assists in re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera, the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduction as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of which will be understood when we consider the large number of micro-organisms which grow under these favorable conditions with such remarkable rapidity.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects.

\*In chronic cases with a large output of gastric mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of hydrozone.

### Selections.

These irrigations may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed this communication will prove serviceable to a large number of practitioners who have hitherto found serious difficulties in counteracting the mephitic influences of bacteria in this class of disorders, and the clinical virtues of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment.—Dr. John Aulde in *New York Medical Journal*, August 15, 1896.

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### A POOR MAN WHO BECAME FAMOUS.

“Did you know that Bumpstead had become famous almost in a day?”

“No. I hadn’t heard of it.”

“Then it is evident that you don’t read the papers very carefully. Why, his picture and an article that he wrote are being published all over the country.”

“You don’t tell me? It’s funny I hadn’t heard of that. I supposed I was keeping track of nearly everything of any importance that was going on. Tell me about this affair of Bumpstead’s. You say he has written an article?”

“Yes. Here’s a copy of it, together with a portrait of him. See, you can tell that it is Bumpstead, because his name is printed right under it. I’ll read the article.

“‘Drs. Gullem & Skinnem, Dear Sirs: For six years I was unable to walk, owing to the loss of both legs. I was also greatly troubled with gout and ingrowing toe-nails, but after taking three bottles of your lightning cure I was a new man and am now giving lessons in dancing.’

“But there isn’t a word of truth in that. He never lost his legs.”

“No, there isn’t any truth in it, but I understand there was \$25 in it for Bumpstead, and you’ll have to admit that he needed the money.”

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### AN ALTERNATIVE OF UNSURPASSED POTENCY.

It is not unlikely that all our readers are well and favorably acquainted with Elixir Iodo Bromide of Calcium Comp. (Tilden). A preparation which has stood the test for over thirty years. But it is natural to be influenced somewhat by the extravagant promises made for other preparations, claiming to be “the same thing” or “just as good,” and offered to the profession by supposedly reputable houses.

### *Selections.*

It is therefore apropos to remind the profession that "Elixir Iodo" has no equal in its special field and that the attempts of dishonorable competitors to foist upon the doctors worthless imitations is doing incalculable damage to the reputation of the physician and the well-being of his patient.

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#### HOW DOCTORS ADVERTISED OF OLD.

Men in the medical profession in this country and in England have been much exercised this year in regard to the ethics of allowing a physician to advertise himself. The profession not always have been so sensitive. In the first volume of the *Spectator*, dated 1710, is an advertisement which is far ahead of modern enterprise. It runs as follows:

#### ADVERTISEMENT.

For the Good of the Public.

Within two doors of the Maskerade lives an eminent Italian Chirurgeon, arrived from the carnival of Venice, of great Experience in private Cures. Accommodations are provided and persons admitted in their Masking Habits.

HE has cured since his coming thither in less than a Fortnight, Four Scaramouches, a Mountebank Doctor, Two Turkish Bassas, Three Nuns and a Morris Dancer.

#### VENIENTI OCCURRITE MORBO!

N. B.—Any person may agree to a contract and be kept in repair by the year.

The Doctor draws Teeth without pulling off your Mask.

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"How do you happen to be called Jack?"

"Oh, it's just a nickname."

"I didn't know but that it was an abbreviation."

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A TRYING POSITION. *Kansas City Star*. An old lady, who was seriously ill, found herself to be in a trying position, which she defined to a friend in these words: "You see, my daughter, Harriet, is married to one o' these homeypath doctors, and my daughter Kate to an allypath. If I call in the homeypath, my allypath son-in-law and his wife git mad, an' if I call in my allypath son-in-law my homeypath son-in-law an' his wife git mad, an' if I go ahead an' git well without either o' 'em then they'll both be mad, so I don't see but I'd better die outright."





*James A. Duncan*



### Original Articles.

#### PRACTICAL PROBLEMS FOR THE FUTURE PSYCHOLOGY.

BY ALBERT GEHRING, A. M., CLEVELAND.

Psychology needs to present to the world no statement of its practical aims and results in order to receive from it a justification for its existence. It is a branch of science, of universal knowledge, an exercise of some of the highest faculties of human nature, and as such it bears its own certificate of value, and stands worthily by the side of any other of the human activities. Nevertheless, any outside practical value which the science may have is not therefore to be considered trivial and beneath notice, being in any event a gain and adding to the value which the science already intrinsically has. It has weight especially in the eyes of the multitude, to whom material, visible gain is often the only test of true value, and will act as a stimulus to renewed activity on the part of students of the science, when their theoretical interest begins to flag. A consideration of this aspect of the matter is therefore of importance, even if it be not the primary consideration.

We may pass over all the many minor advantages to be won from psychology in the way of teaching, training of children, hypnotism and so forth. Great though these may seem, they are yet of slight importance when compared with the advantages to be gained by an exact knowledge of pleasure and pain\* and the psychical states they accompany.

\*Pleasure and pain are here taken, not in their common, sensual meaning, but in their broadest, scientific signification, as including all states of consciousness excepting those of indifference. In this sense pleasure comprises not only the satisfaction of the bodily lusts and appetites, but also the exhilaration of exercise, the joys of nature, the stirrings of poetry, the delights of knowledge and the peace of virtue. Pain on the other hand includes the tortures of anxiety, the quiverings of fear, the pangs of separation, the agonies of despair, and all the other various sufferings and disappointments of life.

It is agreed at present, among men of science, that all states of consciousness are accompanied by, and depend upon, corresponding physical states, either of the brain alone or of the body and brain together. Nowhere do we find any free feelings floating about, feelings due only to the activity of the soul and unaccompanied by the vibration of corporeal molecules. All sensations, emotions, impulses, reflections, strivings, depend on the co-operation of flesh and blood—on nervous sensibility and cerebral phosphorescence; and any change or variation in the latter will bring about a corresponding change in the former. A tooth extracted causes intense pain. The liver out of order brings on irritability or depression. A cup of coffee, by stimulating the brain, causes a feeling of exhilaration, and so on indefinitely. If, now, it were possible to determine accurately the physiological conditions corresponding to our various psychical states, it might also become possible to regulate these latter, excluding those that are disagreeable and furthering those that are desirable. If, to come to the core of the matter, it were possible to discover the exact nature of pleasure and pain, and their relations to the various physical states they accompany, it might also become possible to produce at will states of pleasure, or to inhibit states of pain.

Consider for a moment what the consequences of such an achievement would be. Half the problems of every-day life would be solved by it. For the utilitarian or epicurean, indeed, who believes that the attainment of happiness and exclusion of suffering are the highest or only objects of our existence, all the problems of life would thus be solved. The physical processes on which pleasure depends being known, it would be necessary only to devise means by which these processes could be nourished and maintained constantly, and the millenium would be reached. Heaven would be established on earth. But even for those who do not adhere to these views, the value of such an achievement can not fail to be seen. For even if happiness is not the principal thing in life, yet it is one of the principal things, and its regulation and production artificially would be an affair of vast importance. It would be an achievement greater than any before accomplished on the face of the globe—a blessing greater than any invention ever made, or literary production ever written.

Most devices for our welfare and happiness attain their ends in indirect ways only—by furnishing suitable exterior conditions for the arousal of states of the brain or body corresponding to pleasurable sensations and emotions, or by awakening ideas in the mind which shall in their turn bring about those states. To the former belong the hammock, the soft sofa and the palace car; to the latter the welcome letter, the humorous story and the stirring drama. But the effect in all these cases is uncertain and variable. The hammock affords no comfort to the dizzy. The sofa may aggravate our brooding and melancholy. The drama, again, and the joke may fail altogether to produce their usual effect when we are sleepy or troubled with care. Our future psychology would here be of service by showing us the inner, more important and more elusive conditions of the states we seek, and by enabling us in many cases to bring about the same by more direct means, either in conjunction with or independent of the indirect means above indicated.

In future days, if I wish to have a sense of buoyancy in the morning and of enthusiastic delight in work, I must take the gymnastics and breakfast prescribed according to the latest discoveries in psychology and medicine, and lo! I shall feel like a new being. Towards noon the feeling may begin to wear off, and a certain lassitude take its place. Psychology will recognize its causes and provide the appropriate remedy. It could, by special devices, nourish and rejuvenate the processes on which buoyancy depend, but no—it has a still better plan. It knows that rest is good for those processes, and that other processes, which have lain dormant all the morning, are now ready to perform their function with pleasure. Means are at hand for a little occupation of a diverting character—possibly esthetic or gymnastic. Changed employment brings new vigor, and in a quarter or half-hour the work can go on cheerfully until noon.

In the same way will the hour after lunch be provided for. The body is now in a different condition and needs different employment in order to bring about the maximum of well-being. By a judicious use of certain stimulants dulness is avoided, or is led off into pleasant dreaming and reverie. A diagnosis which all are taught to make reveals to me the proper time to go to work again, and the rest of the afternoon passes agreeably away. If in the evening I wish to go



to the concert, I ascertain, by a similar diagnosis, whether I am in the right mood to appreciate it or not. If I am not, I make use of one of the lately invented "esthetic electrifiers" and am ready to be moved to tears by the funeral march from "*Götterdämmerung*." Towards the end of the evening I may happen to become somewhat drowsy, in which case I can brighten myself up with a harmless little "wide-awake pill." And if perchance a feeling of dissatisfaction at the mechanical way in which all this is done should creep over me, I should merely have to swallow one of Professor A's "contentment powders," and the physical state corresponding to discontent would give way to that corresponding to perfect calm and happiness.

Meanwhile Professor A's "contentment powders" are not yet invented, and the repugnance which certain readers may find to such "chemical happiness" will have to be alleviated in other ways. It is to be noticed, in the first place that the procedure here described is the same as that practically followed by most people even to-day. We all take exercise, baths and naps in order to feel well, and most of us make use of some form of stimulants—tobacco, wine, coffee, or tea—for the same purpose. After dinner we lounge about, play billiards, or engage in light conversation, and when we feel depressed and worn-out with work we go to the doctor and have him prescribe a tonic for us. Psychology would, with its knowledge of the laws of pleasure and pain, simply do systematically and more completely what we now do instinctively and through experience. It would map out that course of work and recreation for the day which would be most conducive to our welfare and happiness. It would provide preventives or immediate remedies for all those fleeting fits of melancholy and dulness, whose causes are at present so elusive. It would teach us how to enjoy long and keenly without resultant depression or injury to health. And why should it not do this? Why should we not bring about beneficent and agreeable states of mind artificially? The argument that it is not natural to do so is absolutely worthless, for it would apply equally well to almost all results of civilization. It is not natural, in the same sense, to build houses and heat them, to cook food, talk in verses, ride in carriages. Besides, the statement is, in the true sense of the word "natural," not correct. For it is natural for man to

think, to desire happiness, and to devise means for the attainment of the same.

A joyous, elevated state of mind remains such, no matter what the causes that brought it about. An emotion is what it is, and it seems but a prejudice to object to it on account of its origin—a prejudice, too, which would probably die out with the familiarization with the artificial methods of the future psychology. For are not the states of feeling brought about by coffee, wine and tobacco fully as artificial as those indicated above? And yet wherever the custom of using these stimulants prevails, the enjoyment which they afford is not lessened by the knowledge of its artificiality.

It may perhaps be objected that bodily pain is useful as a warning-signal of danger and injury; that mental suffering is of service in developing the manly virtues and building up character; and consequently that the discoveries we are hoping for would not at all be the boon to humanity that we are making them out to be. To the first of these objections we answer that the application of the discoveries under question would of course have to be made in accordance with the dictates of reason and in such a manner as not to interfere with the legitimate offices of pain. Even with this restriction, however, there will still be an enormous field for the extension of happiness and diminution of misery. It is to be noticed, furthermore, that as civilization progresses and men become more educated, pain in its function as a warning-signal becomes constantly more superfluous. Practices in which the savage does not indulge, merely on account of the agonies they would cause him, the cultured man abstains from because of his knowledge of their injurious effects. The diseases of which the peasant first becomes aware through intense suffering are long before this brought to the notice of the intelligent observer by means of slight cutaneous or temperamental changes. It is, in fact, not at all improbable that by the time discoveries such as those we are considering shall have been made, mankind will have progressed so far in the field of knowledge as to be able to dispense, to a great degree if not entirely, with pain in its function as a warning-signal.

The second part of the objection brings us to some of the deepest problems over which the human mind has ever pondered. It is undeniable that disappointments and strug-

gles frequently bring out some of the most excellent qualities of man; but it seems equally clear that they sometimes have the very opposite result, as witness the innumerable persons driven to drink and suicide by sorrow. And if happiness has often an enervating, weakening influence on the character, it also in many cases renders more cheerful and noble. Emotions such as those expressed in Schiller's "Ode to Joy" are certainly among the highest of which mankind are capable. But, however we may regard this matter, one thing seems clear, namely, that any arguments against the elimination of pain which are based on the character-forming influences of sorrow might as logically be directed also against hospitals, infirmaries, anesthetics, theatres, dancing, or in general against all pain-diminishing and joy-producing institutions and appliances.

Whatever may be the final office of pain, the efforts of humanity have constantly been directed toward its diminution and toward the increase of happiness; and all that this essay undertakes is to point out the surest path for future advances in the same direction. It may be suggested, in this connection, that, as we are approaching a stage in which pain as a warning-signal will largely be superfluous, so also we may be at the dawn of an era in which suffering as a means of developing character will be less and less necessary—partly because this end will be brought about to a great degree by education (aided also by the very discoveries of which we speak), and partly because with more perfect social and political institutions there will constantly be less need of the heroic and self-sacrificing qualities.

Many readers will possibly think that such results as we have above indicated can never be attained by psychology—that it will never succeed in gaining control over pleasure and pain. But this would be a very hasty conclusion indeed to make, in view of the wonderful discoveries of the last few decades. Take, for example, the newly discovered Roentgen rays; how much nearer they bring us to our goal! It may be possible, at a not very distant date, to observe accurately all the various processes going on in the human organization, to follow a drop of blood from the heart back to the heart again, to register the behavior almost of the very molecules which compose our tissues. And would it then be extravagant to hope for an explanation of pleasure and

pain? Possibly there exist in our brain special organs for pain and for pleasure. If this were the case the matter would simplify itself down to the finding of means whereby the latter might constantly be stimulated and the former repressed; and by the time these discoveries were made, medicine and science in general might have progressed so far that, as mentioned above, we could very well dispense with pain in its function as a warning-signal. We might then disable its organ for long periods of time, or allow it a state of atrophy.

These are but a few scattered thoughts on the great consequences and blessings likely to flow from discoveries in psychology (aided of course by medicine and the other sciences) similar to those we have indicated. But even from these fragmentary glimpses the importance of the matter must be felt by every one. The mere future possibility of living perpetually in a state of health and happiness, with never a feeling of discouragement or melancholy to hinder the fullest development of our faculties, ought to fill us all with a high hope, and make us regard psychology as the initiator into the perfect life on earth.

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## THE NEW ARMY RIFLE AND ITS EFFECTS.

BY J. J. ERWIN, M. D., CLEVELAND.

The recent changes in firearms which are of most interest to the surgeon are the enhanced power of the explosives which propel the missiles, and the diminution in size of the projectiles impelled. These are features which are of like import to the civilian and to the military surgeon, for the same changes are found to obtain in civil as in military armament, where the rapidity of the bullet has been augmented from four hundred to six hundred meters per second, its size reduced from 0.70 to 0.30 inch, and the force of its penetration increased five or six fold. This change in size of projectiles was due to observations on the effects of explosives employed, by which it was ascertained that with the greater power from the improved explosive increasing the celerity of the bullet, the size of the missile could be diminished without materially changing its destructive effects at short range, because of the live energy thus imparted. It

was also discovered that energy depended upon weight as well as upon velocity. In the large caliber bullet velocity is impeded by diameter and energy increased by weight. The study of the advantages to be obtained by a reduction in caliber and the use of projectiles of hard exterior, dates from the publication of a pamphlet by Prof. Hebler, a German artillery scientist, in 1882.

The changes which have most affected the work of the surgeon, commenced in 1840, when sixty to eighty grains of loose black powder were used in the old smooth bore muzzle loader, caliber 0.60 to 0.70 in., round leaden bullet, with an initial velocity of from six hundred to eight hundred feet per second, and an effective range of not to exceed 200 yards.

In 1854 elongated bullets, then rifles, came into use, and the caliber was reduced to 0.58 inch. In 1864 the breach loading rifle called the Prussian needle gun came into force. The caliber was reduced to 0.44 inch and the initial velocity increased to 1050 feet per second. With this change the explosive effect observed in the wounds which it produced became recognized as something of especial importance to the surgeon.

In 1875 the United States partially recognized the value of the new departure and adopted for its army the Springfield breach-loading rifle with a cylindro-conical ball of pressed lead, caliber 0.45 inch, weight 500 grains, impelled by seventy grains of black rifle powder, giving an initial velocity of 1301 feet per second, which brought the effects attendant upon small caliber bullets into the field of observation of the American surgeon.

In 1880 the small bore Label rifle of the French caused a complete revolution of all previous methods concerning rifled firearms. The Label had a caliber of 8mm. (0.31 inch) with a cylindro-oval nickel-steel cased ball 0.1mm. larger and about four calibers long, weight 230 grains. Thirty-six grains of smokeless powder gave it an initial velocity of 2000 feet per second, and an effective range of nearly two miles. The explosive effect occasioned by the ball at once produced increased interest from a surgical point of view and led to much scientific investigation which has occupied the attention of experimentalists to the present time, and has produced many gratifying and instructive results.

In 1892 the present magazine rifle of the U. S. Army

was adopted. Its caliber is 0.30 inch; bullet—a slug composed of lead with 10% antimony, covered by a cupronickel-steel casing; 1.25 inches long; weight 220 grains, and discharged with thirty-seven grains of Wettern smokeless powder, which gives it an initial velocity of 2000 feet per second, with a rotary motion of 2400 revolutions per second, or one turn in ten inches of flight.

Of the improved powders used in all modern cartridges, Lieut. Col. Wm. H. Forward, Dep. Surgeon General of the U. S. Army, has to say "While the details of their preparation are more or less strictly guarded as national or trade secrets, it is shown by analysis that their composition is based upon a substance resulting from the action of nitric acid on vegetable fibre, in the form of binitrate or trinitrate of cellulose. The object in constructing these powders is not to avoid smoke for any tactical purpose, but to avoid residue in the barrel of the gun. They burn with but little residue and they are therefore relatively smokeless."

The greater velocity imparted by these explosives gives to the projectile a more powerful effect, through transmission of live energy. The shattering or comminuting effect of the projectile upon the tissues is called the explosive effect, or a centrifugal transmission of energy. This lateral transmission of energy radiates from the point of first contact, perpendicularly to the diameter of the perforation, thus causing a greater defect at the exit. In this way the shorter range, or increased velocity, enlarges the channel made by the projectile through the tissues in proportion as the live energy is increased through the heightened force by which the projectile is propelled, and explains the funnel-shaped aspect of the wound through uniformly soft parts. This occurs the same when the bullets are round and of soft material, thus capable of greater deformity, and when the projectile is of conical shape and of material incapable of deformity. Those of soft material effect larger openings because of the increase in size from being flattened in impact.

The transmission of live energy lessens by distance in proportion with the retarded celerity of the projectile, until a time arrives when we have a smooth perforation with very little lateral effect. When the distance becomes so great and the live energy so reduced that a perforation is not produced, the lateral effects, which differ from the explosive

effects, become a force directed upon the tissues in both a radial and concentric form, producing a contusion.

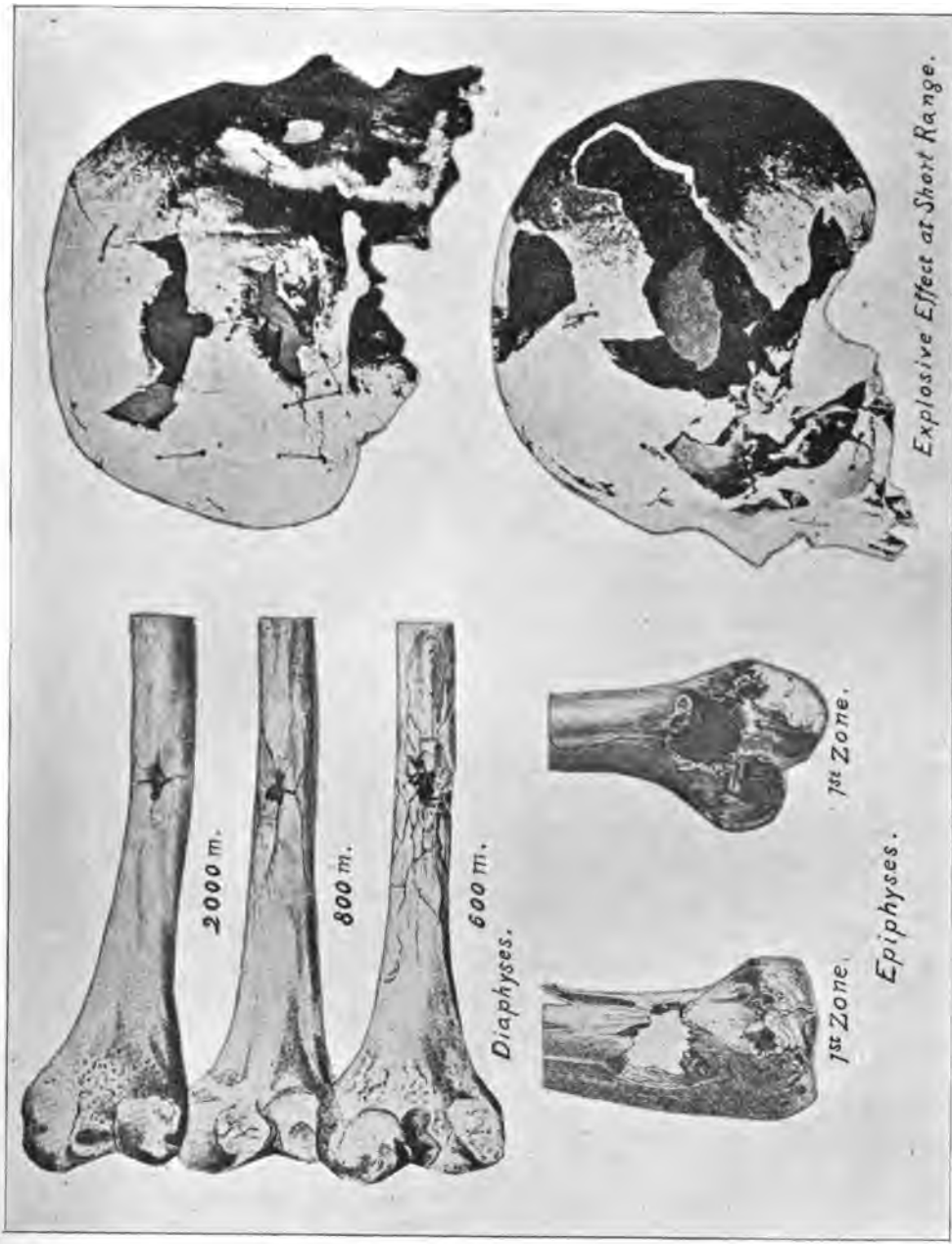
Thus we have specific effects dependent upon the distance the projectile has traveled before inflicting the injury, because the energy of a missile is the factor controlling the amount and kind of injury inflicted.

While there can be no absolute points at which division into specified distances may be determined by the effects observed, yet, for convenience of practical application of the facts which are known to exist, we will accept the suggestions of Bruns, and separate the effects shown in wounds made at different distances into three divisions which have been denominated zones. These zones have been considered by different observers and by them divided to suit the results as shown by their individual experiments. They differ but slightly, and in no way compromise the generally accepted results.

In the first zone we will include those wounds inflicted within the limit of 1 to 320 meters (350 yards). It is here that we find the explosive effect decidedly marked. When the bullet strikes a tissue fairly, it inflicts enormous, sudden and intense pressure. The yielding of the tissues is not sufficiently rapid to admit of perforation or advance of the projectile with unimpaired momentum, and the force becomes active by lateral pressure, thus disintegrating the substance at right angles to the line of impact. So it is that the most destructive effect is marked in the zone of greatest energy.

Of these effects Capt. Louis A. LaGarde of the U. S. Army writes, "When a resistant bone has been hit, the foyer of destruction will show great loss of substance; the bone will have been finely comminuted; the pulverized bone will have been driven, not only in the direction in which the projectile has been traveling, but in all directions, and the pulpification of the soft parts will not only be limited to the track of the bullet, but the utter destruction is noticed some distance into the tissues."

In this zone is noticed most particularly the increased explosive effect caused by the presence of fluids—which accounts for the greater manifestation in soft tissues, and the round opening with absence of comminution in the perfectly dry bones at short range and under full charge of explosive. It also explains why there is less comminution and deform-







ity in moist bones in the living tissues in the same wound, when compared with the destructive effects which exist in the soft parts. There is probably no place where this condition is more plainly marked than is shown in wounds of the heart—in systole we find simple perforation, in diastole extensive destruction. In the liver, spleen and like viscera we find pulpification great—the brain extensively destroyed, the muscular tissues less, and the lungs exhibiting a narrow wound-channel, the walls of which soon become infiltrated with blood.

In zone two, which marks a continuation of the distance from 320 to 800 meters (875 yards), the bullet produces a wound which displays little or no explosive effect. It is cylindrical and not conical as we find it in zone one. The wound channels through the soft tissues are usually smaller than the caliber of the projectiles which occasioned them. The entrance wound is always smaller. The entire effect on the soft tissues is much less destructive, presenting conditions like unto stab wounds. Bones are perforated and splintered, but retain their form. With the large leaden bullet of the old type, the explosive effect in the corresponding zone does not differ from that in the first.

In zone three, which is usually considered to have completed the distance in about 1200 meters (1312 yards), the wound is cylindrical. The point of entrance is still smaller than the projectile and is also slit-like in appearance. The place of exit is similar, and only larger when the ball has collided with something which would deform and change its caliber. The bones are perforated, seldom shattered or splintered, but less smoothly perforated than in zone two. The ball is more often deflected on account of loss of inertia.

It would seem from effects inflicted beyond the 1200 meters that there was room for the consideration of a fourth zone, which would include injuries from still remaining energy. Most bullets have at this time the peculiarity of having lost their horizontal impact. The results are as from a glancing shot which reaches the body under all sorts of angles, causing either simple contusion, or fractures with extensive lacerations of the soft parts.

Considering these new conditions in a general sense, we find many features which are of value, in enumerating which we may observe, first, that the bullet, being small and hard

and impelled with such celerity, is little deformed, less deflected by striking the harder substances in the body, and less liable to become impacted. Thus the differential diagnosis between penetrating and non-penetrating wounds of the cavities is attended with less uncertainty than formerly, for the missile will take a direct course and in most instances pass through the body in a straight line, and its course will determine the localities involved.

With the old ball and less force than is transmitted by the modern explosives, lateral impacts were more common, resulting in great destruction of muscles and soft parts, and less certainty as to the parts involved.

It may not be improper to say that the new weapons are more humane in their death-dealing work. When the body is struck with one of these missiles the shock is usually less, and when the injury is directed against a vital part, death comes quickly.

On the whole, there will be a greater mortality in the future than in the past on account of primary hemorrhages. Already there has been some speculation on the situation; Morandy estimates 75% of deaths from this cause, Legouest 30% and Libell 18%. Statistics will doubtless soon appear covering this point.

If the casualty be only a wound, the injury yields more readily, repair is more rapid, the number of limbs saved and restored to usefulness will hereafter be much greater, and the time of suffering and convalescence less protracted.

Stitt, a United States naval surgeon, reported, as a result of his observations in the Chilian war, that those who were wounded by the small bullets "left the hospital a considerable period of time before their fellows who had been wounded by the old projectiles were convalescent."

At long range, there being less pulpification, less contusion and less laceration to the soft parts, there will be less liability to secondary hemorrhage induced by the sloughing of a large area of the tissues surrounding the tubular traumatism.

In wounds of the extremities, and in muscular tissues wherever struck, owing to the small caliber, unless some vessel other than those located in the mass is wounded, the hemorrhage is surprisingly slight. More blood is lost from the subcutaneous connective tissue at the site of the open-

ings than through the track of the bullet. When large blood vessels are hit, injury to the intima is greatest. When viscera are grazed by a bullet, within the zone of explosive effect, they are more mutilated and not pushed aside as was common with the old ball. Vessels are cut by the new ball, not torn as with the old. This is an item to be promptly considered, for the death rate would be increased by delay.

Surgeon General Griffith of Missouri, in his experiments on dogs with the new army rifle, writes "It was noticed that whenever a vessel was struck the opening was absolutely clean cut as if by a knife—no 'curling up' of the inner coat—so that hemorrhage could only be checked by stopping the heart-beats." Thus the cutting effect which severs the artery is also more liable to divide its accompanying nerve, and the arrest of the blood supply and the paralysis attendant upon the divided nerve would effect dangerously the nutrition of the injured limb.

Injuries to important nerves, when sufficiently severe, lead at once to complete and indubitable paralysis of their peripheral distribution. It may also increase the surgical shock so profoundly as to bring about a rapidly fatal inhibition of necessary and vital functions.

If a nerve is injured by a ball within the first zone, or by being struck immediately after the ball has entered the body before its velocity has been impeded by traversing other tissues, the violent impact against the nerve fibres produces an impression, the immediate effect of which reaches to points more or less remote from the point of injury—even to the nerve centers themselves. Thus the functions of the latter become inhibited or arrested, and general shock is developed, sometimes to an alarming degree. Shock is the result of a reflex vasomotor paresis, the maximum symptoms of which appear immediately after receiving the injury.

Bruns and others advocated the idea that asepsis would be produced by heat generated in firing, by the friction in the barrel and the friction against the air.

In considering the matter of septic infection by the missile inflicting the wound, it is doubtless true that septic material is gathered by the projectile through contact after having been loaded into the cartridge; and that care manifested through antiseptic precaution observed by packers and handlers of these cartridges, would very much mitigate the

suffering of those receiving gunshot wounds. It is true that the heat and use of acids and alkalies employed in the process of manufacture, render the majority of projectiles at first free from septic germs.

von Beck has shown by direct thermometric observation that a leaden bullet does not acquire a higher temperature than 69° C. (156° F.), one with a steel jacket 78° C. (172° F.) and one with a copper jacket, the best conductor of heat of the three, 110° C. (230° F.). Koch and Wolfhügel found that non-sporebearing bacteria were not destroyed below a temperature of 212° F. maintained for one and one-half hours, while spores required a temperature of at least 284° F. for three hours to effect their destruction.

To put theory into practice Messner experimented with cans filled with sterilized Koch meat-peptone-gelatin. At distances of 125 and 250 meters, with a full charge of powder, the piece was fired. Experiment No. 1 was with a non-infected bullet, can sterile. In No. 2 the bullet was infected with pure culture, the can was sterile. In No. 3 the bullet was not infected, but the can was covered with flannel, which was infected with a known coccus in pure culture.

The results were as follows:

No. 1. The shot canal through the gelatin showed no change. No. 2. Without exception the gelatin in the cans showed the development of the specific germ with which the bullet was infected. No. 3. The shot canal was infected with the same germs with which the flannel covering the can was known to have been infected.

Capt. Louis A. LaGarde conducted experiments on animals at Fort Logan, Col., May 10th, 1895. Five sheep were shot at three and five hundred yards with the 230 grain steel-jacketed bullet of thirty caliber. The projectile was propelled by thirty-seven grains of Peyton smokeless powder.

Each projectile was infected a few moments before firing "with a recent virulent culture of the bacillus anthracis on an agar-agar slant." Of the five animals two were wounded in a condition to show the test. Of these two the Captain writes, "Of the wounded animals, No. 1 received a wound at 500 yards on the inside of the right ham near the shank. The projectile passed out fracturing the ham bone. Death ensued six hours after the injury. Cover-slips prepared from the blood of the liver, spleen and heart, stained

with a watery solution of gentian violet, revealed the bacillus anthracis. Colonies of the bacillus anthracis were isolated on agar-agar plates inoculated from a bouillon suspension of the blood from each of the organs mentioned."

"No. 4 was hit at 300 yards in the left shoulder, the projectile making its exit at the right side of the neck. \* \* \* Cover slips prepared from the blood of the spleen, liver and heart showed anthrax bacilli in nearly every field."

But this is not the only medium through which sepsis may be produced by ammunition in wounds at short range. Capt. LaGarde also conducted a series of experiments with powder, sterilized, normal, and specially infected, with results which convey valuable information to the surgeon. To show that powder as purchased in the ordinary way is not aseptic, he took six gelatin rolls (Esmarch plates) and prepared each to contain six grains, by weight, of Dupont's "F." black powder. Six bouillon tubes were similarly inoculated and placed in the incubator at 35° to 37° C. The latter were clouded after the lapse of twenty-four hours, and hanging drops as well as cover-slips prepared from the different cultures contained bacteria of many different kinds. The gelatin rolls, after forty-eight hours at the room temperature, were invariably studded with colonies varying in number and kind.

When forty grains of black powder were mixed with ten grains of dust from the street and fired from a forty-five caliber Springfield carbine at five feet into gelatin or agar-agar, the plates were found rich in colonies after the lapse of the prescribed time.

To make his experiments more conclusively practical, he inoculated black powder with anthrax spores. I quote his words describing the experiment: "The culture used was an old one, on an agar-agar slant. The spores were mixed with fifty-five grains of powder taken from a shell of the forty-five caliber Springfield carbine. The charge of powder was poured on a white piece of paper, and a platinum needle, properly sterilized in the flame, was passed once into the culture of anthrax spores and then a number of times in and through the powder until the grains of the latter no longer adhered to the needle. The needle having again been sterilized, it was once more passed through the culture, then through the powder as before. This was repeated four o

five times for each charge of powder, six in all. Two Petrie dishes containing agar-agar were placed in wire frames, and the latter were suspended against the target four inches apart. The marksman, who held the muzzle of his carbine at five feet, was directed to locate his projectile as nearly as he could midway between the two plates. In this way a number of powder grains were collected on each of the twelve plates, out of the six shots fired. The plates were at once placed in the incubator at 35° to 37° C. After the end of twenty-four hours four of them contained colonies of the bacillus anthracis."

To make the tests more decisive in proving that contaminated black powder would carry germs into animals when fired upon at short range, the author writes, "I loaded six blank cartridges, each containing eighteen grains of black powder infected in the manner described with anthrax spores. The weapon used was a thirty-eight caliber Colt's revolver, range one foot. Six rabbits were selected, and each animal was shot in one or both ears. In four of the animals the unburned grains of powder failed to penetrate the skin entirely, while in the other two the powder grains were for the most part well imbedded in the skin and areolar tissue. One of them died on the fourth day, while the other recovered entirely. Cover-slips prepared from the blood of the heart, spleen and liver of the dead animal, stained in a watery solution of methylene blue, revealed anthrax bacilli in nearly every field.

Experiments with the Peyton smokeless powder showed some substance to be contained in the explosive which inhibits the growth of bacilli except in bouillon, where the most resistant forms of germ life were found to grow. Black powder when mixed with the smokeless article shared the same fate. Not so when 10% to 20% of the earth was purposely mixed therein. The author writes, "Of three rabbits shot in the ears at four feet by a Krag-Jorgenson rifle loaded with blank cartridges containing thirty-seven grains of the Peyton powder, which had previously been contaminated with anthrax spores in the manner already mentioned with black powder, one of the animals sickened on the third day and died on the fifth day. Cover-slip preparations, properly prepared from the blood of the spleen, liver and heart, and stained with a watery solution of gentian violet, revealed the

presence of anthrax bacilli, though few in number. Sections of the liver and spleen, stained by Gram's method, exhibited the presence of the same bacilli in the vessels."

Possibly these results will explain the occurrence of infection like tetanus, malignant edema, erysipelas etc., so often following gunshot wounds.

When considering powder burns, much has been brought out in recent investigations. First, the shorter the barrel, the greater the powder brand and powder burn; penetration of the powder grains is greatest with the short barrel, and large grains of powder penetrate deeper than small ones.

The most remarkable departure from the well-known effects of powder at close range is seen with the Peyton smokeless powder. It causes no burning, but penetrates the integument to a greater extent than any other, without producing a powder brand. Another peculiarity is that most of the grains will enter the skin below a line drawn horizontally through the orifice of entrance of the projectile

Since the powder produces no powder-brand, the surgeon is at a loss in determining the position of the weapon when discharged—a point of considerable medico-legal importance in cases of suicide or homicide. There is also no sound when the ball strikes the body, or as it traverses space. There is no smoke from the explosive, and the disturbed conditions of atmosphere at times are misleading in the conveyance of sound from the explosion. Thus the source from whence the missile came is liable to be shrouded in ambiguity.

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## REPORT OF A FEW CASES OF LAPAROTOMY.\*

BY CARLOS C. BOOTH, M. D.,

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### MELANCHOLIA SUCCESSFULLY TREATED BY THE REMOVAL OF OVARIES.

#### *Two Cases.*

Mrs. S., aged 32, came under my care as a private patient in June, 1891. Had been confined at Dixmont Asylum, Pa., for insanity some two years previously. She had complained of severe pain in the region of both ovaries and would, just previous to the menstrual period, become melan-

\*Read before the Mahoning County Medical Society, January 4, 1897.



cholic, and at times had thought she could not prevent taking her own life.

Physical examination revealed tenderness of both ovaries, but no enlargement. Her case being of such seriousness, and from the fact that she had shot herself previous to going to Dixmont, I decided that a better treatment would be to remove the ovaries, as she had been married several years and had not borne children. Removed both ovaries at the City Hospital, May 16th, 1892. Ovaries were normal in weight, possibly slightly enlarged, and covered by exceedingly fine vesicular eruptions, otherwise normal. The tubes were normal and contained no diseased secretion. She made a rapid recovery and was removed from the hospital in three weeks. She had no return of her melancholia, enjoyed perfect health and lived happily with her husband for two years, when she contracted typhoid fever and died.

Mrs. S. T., aged 25 years, mother of two children, oldest three years, youngest fourteen months, became melancholic three months after birth of youngest child without any apparent reason. She felt that she was unsafe to leave alone with her children; at times was so depressed that it was almost impossible for her to prevent destroying the children and herself. Finally she became so bad that she was confined to bed. She rapidly became a physical wreck, but by gradual building up and forced eating, I managed to get her out of bed and about the house and finally physically able to do her own work, but she did not wholly recover from the melancholic attacks. Physical examination at the beginning of the attack revealed a large tender uterus and tender ovaries. At the end of four months after thorough uterine treatment, the uterus became quite normal and the ovaries much less tender. Her mental and physical condition, with painful menstruation every four weeks, continued about the same for nearly a year, when, after a consultation, I removed both ovaries April 18th, 1894, at the City Hospital. She made a beautiful recovery and was discharged in three weeks from the hospital and has had no return of melancholia since the day of operation.

However, in the fall of '94, she developed symptoms of appendicitis and recurring severe pain in the right iliac region, temperature ranged from 100° to 101°, pulse 110, during these attacks, and they would last about seven or

eight days. These attacks continued to recur once in about every six weeks during the winter of 1894-95, when, after a consultation with several physicians, it was decided that a better treatment would be to make an exploratory incision over the region of the appendix, which I did in the spring of '95 and found the appendix perfectly normal, but with my finger I could reach the right cornua of the uterus, and on it I found what seemed to be a cyst, the size of a hazel nut, at the point where I tied off the tube and ovaries the previous year. Not being able to reach this cyst from my incision over the appendix and feeling bound to relieve my patient, I immediately closed this wound with four silk worm gut sutures and made an incision over the linea alba right by the side of the old cicatrix, that resulted from the former operation, and reached the cyst, but on gentle manipulation it ruptured, having contained a simple transparent serum. I closed the abdominal wound and after an uneventful recovery, she left the hospital at the end of three weeks and has since remained perfectly well. She gained fifty pounds in weight and is able to do her own work and take care of two children, and constitutes the better half of a happy family.

#### GUN SHOT WOUND OF THE ABDOMEN.

##### *One Case.*

Master T., age 14 years, was brought into the Youngstown City Hospital at 9:30 A. M., Oct. 24th, '96, having been shot in the abdomen at 7:30 o'clock the same morning. The ball entered the right middle linea semi-lunaris three inches below the margin of the tenth rib.

Immediate symptoms when shot: fell as if dead, was greatly shocked, shortly complained of pain in this region and vomited a hearty breakfast. Symptoms at hospital:—complained of severe pain in the right hypochondrium and epigastric region, vomited freely and often, pulse 90 to 100, temperature not taken, was conscious, could answer questions as to the nature of the accident and said that a boy, his playmate, accidentally discharged his Flobert rifle within three feet of his body, while he was leaning slightly forward. His lips were pale and his skin was cold from shock and loss of blood, abdomen was not distended. It was immediately decided by the staff that an operation be done at once.

At 10:30 A. M., I made an incision three inches long, parallel to the linea alba, through the wound, found much blood clot and the intestines and peritoneum in the immediate region of the wound considerably congested, found two perforations of the jejunum and one peritoneal wound of the same intestine, two wounds of its mesentery, no other wounds apparent. A large mesenteric vein in this mesentery was bleeding profusely, around which I immediately tied two ligatures. Closed the two perforations of the bowel with Czerny-Lembert sutures and one Lembert through the peritoneal wound of the bowel. Closed up the mesenteric wounds in the same manner. Flushed the abdomen with warm distilled water until the water came out clear. He had lost so much blood during and before the operation and his pulse became so rapid that it was necessary to infuse one quart of normal saline solution, which one of the members of the staff did while Dr. Peck and I were searching for other perforations. This seemed to cause him to rally somewhat. We quickly inserted a few silk-worm-gut sutures, leaving a glass drain in the wound. He was on the table about thirty minutes only. He was put to bed in a fair condition with fair prospects of recovery, but within an hour he had bled a few drams from the tube, from which time he lost about three ounces of blood until 3 A. M. the next day when he died. Death was from shock and hemorrhage.

At noon the next day, Oct. 25th, '96, I made a post mortem examination in the presence of the hospital staff and others. The following conditions were found:—The clean dressing which had been put on at the hospital after death, was saturated with bile. A median incision disclosed free bile in the upper portion of the abdomen and about six ounces of blood clot in the hollow of the sacrum. The perforations I had sutured were beautifully glazed over with a thin layer of lymph, solid and firm; found two small holes through the lower and anterior surface of the gall bladder, about an inch apart, two circular perforations through the greater curvature of the stomach, posterior surface, near the pyloric end, and two perforations of the abdominal aorta, opposite umbilicus, that is, through the anterior and posterior walls of the aorta, enabling me to pass my blunt grooved director through the aorta from before backward without any resist-

ance, and I did so in the presence of all the physicians who were present, so that there could be no mistake as to the perforation. We did not find the ball.

*Remarks:*—No bile presented during the operation, and there was no evidence of perforation of the stomach present at the time of the operation, other than the vomiting, which might have been due to perforation of the intestine or to shock. During the operation I did not search for the gall bladder or for perforation of the stomach, as the external wound was so far down below them that we had no idea of such an occurrence. The portion of the jejunum and mesentery which was injured was immediately opposite the perforation of the abdominal wall. I afterward learned that the boy was leaning quite a good deal forward and had eaten a hearty breakfast, thus bringing the gall bladder and stomach into the line of fire.

I consider that it is quite remarkable that one could live 19½ hours after having his aorta perforated even by a Flobert rifle ball, and also remarkable that the gall bladder had not leaked during life.

#### APPENDICITIS.

##### *Three Cases.*

Mr. F. F., age 25 years, had a severe attack of appendicitis, with the four cardinal symptoms well developed, the first week of May, 1895. Treated him by means of salines. He left the hospital in three weeks, feeling that he was well.

On June 19th, 1895, at 2 A. M. he was taken with severe cramps in the abdomen, and painful vomiting and severe headache; he took salts and secured seven movements during the day. He came to my office at 2:30 P. M., still suffering severe pain in the right iliac region, pulse 100, temperature 99°, and I diagnosed a recurring case of appendicitis. Inasmuch as he was not relieved by his free catharsis, I advised him to allow me to send him to the hospital at once and remove his appendix, which I did with the assistance of the attending staff at 11 P. M. the same night, nineteen hours after the onset of this second attack, pulse 100, temperature 99.6°. The adipose tissue, skin and muscular tunic were fully two and one-half inches thick, he being a very fleshy man. Found the appendix lying behind the cecum, imbedded in a mass of lymph, with a slight opening through the lymph, leading down to the

distal end of the appendix, through which the poisonous exudation had escaped and set up the renewed localized attack of peritonitis which caused his symptoms. Removed the appendix and closed up the greater part of the incision, leaving a small strip of gauze down to the location of the recent inflammatory disturbance. He was discharged from the hospital after a few weeks, well.

I was called to see Mr. J. F., age 20 years, on May 3rd, 1896, at the request of Dr. Yost. Found him lying in bed with a distended abdomen and a history of having been sick ten days, the first week of which his temperature had been as much as 103.5°. He had vomited, had had severe pain in the right iliac region and had been treated by the ordinary means for relieving pain. His pulse at the time of my visit was 100 and temperature 101°. There was great tenderness in the right iliac region, and a board-like feeling and more or less tenderness all over the abdomen. I agreed with Dr. Yost in his diagnosis of appendicitis with probable general peritonitis.

I advised his removal to the City Hospital for immediate operation for appendicitis, which was done on May 4th, 1896. After opening the abdomen, I found the appendix pointing west, enclosed in lymph recently exuded to cover and circumscribe the filthy perforations of the appendix near its distal end. The bowels were matted together by recent exudation as far as I could reach with my fingers. After breaking up the adhesions around the appendix and removing the same, the abdominal cavity contained some serum. I packed the wound with gauze and allowed it to granulate. There was a large amount of serous exudation for several days after the operation, which came, as I believe, from the general peritoneal cavity. He was discharged on June 6th, '96, well.

This is a case which I believed to be a case of appendicitis followed by general peritonitis, the exudate of which had not been invaded by purulent microbes. I believe that the breaking up of the adhesion and free drainage and the removal of diseased appendix at this time saved this man from death from septic peritonitis, which undoubtedly would have developed in another week.

Mrs. W., age 29 years, Swede, mother of five children, was brought into the hospital May 1st, suffering from pelvic

and iliac pain. Had been treated for typhoid fever for an indefinite number of days. Symptoms began with pain, vomiting and high fever. She had a previous similar attack three months before. Temperature when admitted to the hospital 102.6°, the abdomen distended, pulse 110. After free catharsis we were able to make out an indistinct mass lying deep and a little below the McBurney point, which we diagnosed as a diseased appendix. On May 4th the temperature was 99.8°, pulse 100, the greater part of the abdominal distension was gone, she was sweating profusely. I made an incision over the mass and extracted a very large perforated appendix, which was lying deep, thoroughly incased in an agglutinated mass of intestines and lymph. Nature had done her work well, and the patient might possibly have gotten up with an apparent cure, but ready for a third attack just as soon as nature had absorbed a little too much of the fortification she had built to circumscribe the gangrenous portion of the appendix. After tying off the appendix and removing it and inserting drainage, we closed the wound in the usual manner.

On examination of the appendix, we found it perforated through the gangrenous area by three little holes a line in diameter, leaving the contents of the appendix and bowel separated from the abdominal cavity only by the lymph with which nature had surrounded it.

She made an uneventful recovery and is now perfectly well and able to take care of her family.

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## THE ESTABLISHMENT OF A PERMANENT SUPRA-PUBIC FISTULA IN CASES OF ENLARGED PROSTATE.

BY MORRIS D. STEPP, M. D., CLEVELAND.

Medical literature contains much relating to the treatment of patients suffering from an enlarged prostate. Internal remedies have been of no avail whatever and surgical interference, in cases where the urethra becomes so tortuous that a catheter can no longer be passed, or where the latter can not be entrusted to the patient, has been in the great majority of cases of little use. Extirpation,

partial extirpation and puncture with the galvanic needle were all hailed in turn as positive sources of relief, but statistics failed to corroborate the promises made for them. Of the later theories advanced castration is the most recent, but like those which have gone before it, it only partly solves the problem. Histories of results following this operation show that only in those instances where the glandular element is increased, with resulting hypertrophy, is the operation of any use; and yet, even in this variety of hypertrophy, no amelioration has occurred in sixty per cent. of those cases operated upon. Should future observation, covering a longer period of time, be productive of more hopeful results, it is certain that we could use this mode of treatment in only a limited number of cases, since those patients that would submit to it would prove to be a minority of those seeking relief, rather than a majority. Since we cannot at the present time afford relief to the extent of a radical cure, through either surgical interference or internal medication, we must look for and employ the best palliative measures at our command. We must seek those measures that will, when employed, empty the bladder of its residual urine, that will enable the patient to cleanse his bladder frequently without trouble or danger to himself, and lastly, but ranking inversely in importance, it must be a measure that the surgeon can conscientiously recommend to the patient. Those cases in which the hypertrophy exists without causing severe complications, such as a tortuous urethra and difficulty in passing a catheter, or cystitis, and in which the patient is endowed with sufficient intelligence carefully to follow out the instructions of his physician, need not and usually do not look for any further relief than is afforded them by the passage of a catheter and the regular irrigation of the bladder, which operation the patient may usually (after careful instruction) be left to perform himself. It is not this class of cases that I wish to speak about, but just those in which occur an impassable urethra, recurring congestions with sudden retention of urine, cystitis, and urethrismus on attempting to pass a catheter. It is in this state that the patient is in constant danger of bringing on an exacerbation if he does not follow strictly in the path mapped out for him. Immoderate and excessive eating and drinking, physical and sexual over-exertion, exposure to cold and wet, the overdistention

of the badder (thereby retarding the flow of venous blood from the prostate)—either of these is cause sufficient to produce in such a case an acute and sometimes lasting congestion, with resultant retention of urine, atony of the muscular walls of the bladder, cystitis, where there was none before, dilatation of the bladder, involvement of the ureters and kidneys, and finally uremia. Arrived at such a strait where we find the catheter useless and the patient's life in imminent danger, we must devise a means, if possible, to relieve him of his difficulty. The shortest and best way is to aspirate. This will lessen the immediate danger and give us time to apply such remedies as local blood letting or cold. Should the congestion even then not subside, we must either aspirate again or resort to more severe methods, such as *sectio alta* or *sectio mediana*. Of these two methods of treatment the *sectio alta* has many advantages over the *sectio mediana* and has all but universally superceded the latter operation in this affection, as well as in cutting for stone. Capillary puncture has been discarded as being inefficient and, when persisted in, as being dangerous and very apt to lead to extravasation of urine. Schussler reports four cases in which it was resorted to every five or six hours for from one to three weeks, and which ended in death from extravasation. Further, we cannot hope to empty the bladder of pus and mucus, much less wash it out, with so small a canula. When a trochar is used it should be of sufficient diameter to allow the bladder to be irrigated thoroughly, this being sometimes sufficient (by removing the cause) to relieve the congested condition of the prostate. To the *sectio alta* there are also objections, foremost among which are that the patient must lie in bed for a considerable length of time and must wear a voluminous dressing, which is constantly becoming saturated with urine, thereby causing an eczema often resistant to all treatment. To surmount these difficulties a mode of procedure in these cases has been in vogue a number of years in Vienna and has succeeded admirably; this is the establishment of a permanent supra-pubic fistula. The idea in establishing such a fistula is that the patient shall have control of the contents of his bladder, without being in constant danger of losing such control; also that the operation will not necessitate a prolonged stay in bed, will require no anesthetic and but little or no after treatment in the way of



dressings, since if done under favorable circumstances there should be absolutely no dribbling of urine.

The *modus operandi* is as follows: The operator should always first assure himself that he has a distended bladder to deal with and this at times is not so easily done as it would at first seem; for instance, the bladder may have become atonic and have lost its contractile power, consequently it would not have the round symmetrical form we would imagine a distended bladder should have. Should this be the case, it would change its position with movements of the patient, having through its loss of contractility no command over its contents nor its attitude. A bladder may be bound down and altered in form by peritoneal adhesions the same as any of the other pelvic viscera. The following case is on record at Vienna and illustrates the difficulty one sometimes meets, and the grave error one falls into when diagnosing a distended bladder when other complications are present:

A patient presented himself at the hospital with all the usual symptoms of retention of urine. He had an enlarged prostate, had not passed urine for twenty-four hours, and on percussion it was easy to map out what seemed to be a distended bladder, extending about five centimeters above the symphysis pubis. In addition, the patient had an ascites which was also easy of diagnosis. On turning him from side to side the ascitic fluid would gravitate to the lowermost part of the abdomen and the intestines rise to the surface, as was readily shown by the percussion note, but the tumor above the symphysis remained stationary. The latter was punctured with a trochar and about a liter of fluid which looked like urine was drawn off. The tumor immediately disappeared, but within twelve hours the patient died. The autopsy revealed that the bladder was entirely empty and that it had no puncture mark whatever. The fluid drawn off was merely ascitic fluid and what was thought to be the bladder, was this fluid which had been encapsulated by peritoneal adhesions. The patient's death was the result of suppression of urine and not of retention.

The surgeon having satisfied himself on this important point preliminary to the operation, the pubis is shaved, and the usual aseptic precautions are observed. No instrument except a moderately large trochar is necessary. It has already been mentioned that one should be used whose inter-

nal diameter will insure the outflow of a fluid of the consistency of pus or mucus.

The site of the fistula in uncomplicated cases should be about a centimeter above the upper margin of the symphysis pubis, in the median line or immediately adjoining it. The instrument, which should be curved, is plunged into the bladder in such a manner that the tip will be depressed toward the vesical neck, thus obviating the danger of passing in at one side of the fundus and out at the other. After emptying the bladder with the usual precaution, the latter is thoroughly washed out and the canula is allowed to remain in the wound. Adhesive straps should be employed to fix the canula and prevent the danger of its falling out. This is best accomplished by fastening several strips to the integument, tying them to the tube just without the abdominal wall and then attaching their remaining portion to the protruding canula. These can in turn be fixed by other strips made to adhere over them in a transverse direction. It is also well to have an inner tube for the canula similar to the inner portion of a tracheotomy tube. This is for purposes of cleanliness and to obviate the necessity of removing the whole instrument in case its lumen should become occluded, but it must fit the outer tube perfectly or there will be considerable involuntary loss of urine, which is always to be avoided. The patient will urinate at frequent intervals until he becomes accustomed to this foreign body in his bladder, which usually takes from three to four days. After the canula has been worn for this length of time, it may be fitted with a stopper and the patient will soon be able to hold his urine, from four to five hours. When the canula has remained in the bladder for at least four or five days, during which time it is well to keep the patient in bed, granulations are found to line the surface of the fistulous tract and adhesions to have formed between the bladder and the abdominal wall. For the sake of convenience and because it can be more easily secured in place, the silver canula is replaced by a soft rubber catheter of the same size. The change from canula to catheter must be executed when the bladder is distended, since the latter if collapsed would give no manifestation of the presence of the catheter, neither would it, under such circumstances, be possible to ascertain the proper distance that the catheter should extend into the bladder to insure the outflow of urine without hindrance. Further, when the bladder is entirely empty, and the posterior wall is

in close apposition with the anterior wall, the former may completely occlude the internal opening of the fistula so that it would be entirely impossible to pass beyond the latter.

The catheter is fixed in the following manner. At its junction with the abdominal wall an ordinary harelip pin is passed through it at right angles to the linea alba. The pin should be placed as far from the center of the catheter as possible to avoid narrowing the caliber of the latter, first by its own presence and secondly by the urinary concretions which are liable to form upon it. On the abdominal wall underneath the protruding ends, two strips of adhesive plaster (one on either side) should be made to adhere for the ends of the pin to rest upon. Each end of the pin is held by a piece of adhesive plaster placed *over* it and the whole then secured by transverse pieces, parallel to the pin. To complete the appliance a valve or stopper is attached to the protruding part of the catheter. The granulations lining the fistulous tract eventually become covered by bladder epithelium, which extends from within outwards, and by epidermis, which extends from without inwards, and in addition the muscular fibres surrounding the fistula acquire the power of a sphincter, as they do in cases where an artificial anus has been made. It is for this reason that no urine escapes through the space between the catheter and the wall of the fistula. Each week the old catheter should be replaced by a new one. Knowing of course what depth insures the best drainage, special care should be taken to have the new catheter extend into the bladder the proper distance.

It is easy to comprehend with what facility the bladder may be washed out as often as circumstances demand. The device may be worn permanently without causing any untoward symptoms, and it relieves the physician of the worry and the patient of the danger resulting from leaving the operation of passing a catheter in unskilled hands. One would imagine from the ever present catheter that cystitis would play an important role in the future course of events, but of the six cases which I have seen (each of them having worn the catheter for from seven months to four years), not one shows symptoms of that affection. This operation has met with the universal approval of the genito-urinary surgeons of Vienna, and although it cannot be regarded as a curative measure, it is beyond doubt the best palliative treatment within our reach.

## THE SERUM DIAGNOSIS OF TYPHOID FEVER.\*

BY JOHN ELIOT WOODBRIDGE, M. D., CLEVELAND.

MR. PRESIDENT, GENTLEMEN:

It is neither just to myself nor courteous to you, that my first appearance amongst you should be for the purpose of presenting a paper, but since at your last meeting you honored me by electing me, by an unanimous vote, a member of the Staff of this Hospital, I may waive the former, and trust that, in consideration of the importance of my subject, you will condone the latter.

If there is in all the limitless field of study that is open to physicians, one subject, the importance of which entitles it to precedence over all other topics of discussion and investigation, it is the exact and positive diagnosis of diseases in their earlier stages—when, if ever, they are amenable to treatment. Nor is there any department of medicine which shows greater need of or more urgent demand for improved methods.

If these statements are true as general propositions, they are especially so when applied to typhoid fever, particularly in the city of Cleveland at the present time, when the bacillus typhosus is known to be present in our water supply, when every public hydrant yields gas producing bacteria; when the next drink of water or milk that is taken may implant in our systems the germs of a disease, which, if not promptly recognized and cured, may end in death. But typhoid fever is not generally promptly recognized. It is rare indeed that a positive diagnosis is made until the evidences of anatomical lesion are present, and then it may be too late to save the patient's life. There is probably no disease in which, as a rule, an exact diagnosis is so long deferred. There is probably no disease in which errors of diagnosis so frequently occur, and there is certainly no disease in which delays in, or errors of, diagnosis have entailed more disastrous consequences. Therefore if the serum diagnosis of typhoid fever proves what it now seems to be—a means of positively identifying the disease in its early stages—its importance and value cannot be overestimated.

The consensus of opinion, both in Europe and America, seems to be, that while the absence of the characteristic

\*Read before the Staff of the German Hospital, January 11, 1897.

reaction of a given specimen of blood upon the Koch-Eberth bacillus is not conclusive evidence that typhoid fever may not be present, its presence is indicative of true enteric fever.

On the seventeenth of last September, Professor Wyatt Johnston of Montreal, read a paper on the "Serum Diagnosis of Typhoid Fever" before the American Public Health Association, in which he gave his simplification of Widal's method and manifested his faith in it by applying the test in public. Dr. Johnston's explanations were so clear and forcible, and he presented such conclusive evidence of the value of serum diagnosis, that it might well be designated "the Johnston method," for although Pfeiffer of Germany may have first discovered the principle, and Widal of France may have first applied it to the diagnosis of typhoid fever, to Johnston of Montreal belongs the honor of having first taught us in America its practical application—convinced us of its merit, and, as Bacteriologist of the Board of Health of the Province of Quebec, of having given it its first official recognition. The Board of Health of the City of New York is entitled to the credit of having been the first sanitary body in the United States to adopt it, and, like the Board of Health of Quebec, that board now makes serum diagnoses of typhoid fever for the physicians of the city, free of charge.

The success of the test depends upon the power of the blood serum to paralyze and agglutinate in masses the bacilli of the disease. In the present state of our knowledge, it must be admitted that much of our reasoning is hypothetical, but as some specimens of serum from typical typhoid fever patients immobilize the Eberth bacillus without causing any agglutination, and as some others not typhoid cause agglutination without loss of motion, it would seem that more than one substance enters into the reaction, and that for our purpose the principle that causes paralysis of motion is the more important.

These principles are no doubt, the antitoxins of the disease, and their presence in the blood accounts for the difficulty of finding Eberth's bacillus in that fluid.

The technique of serum diagnosis is simple, the annoyance to the patient far less than that of an ordinary physical examination, and the result is an exact and positive diagnosis early enough to give the physician some chance of curing

the disease. The method as practiced by Dr. Johnston is indeed so simple that there is danger of its being brought into disrepute by unskilled or careless observers.

He proceeds as follows:—The tip of the finger or the lobe of the ear should be thoroughly cleansed and dried, pricked with a sterilized needle, and the exuding drop of blood caught on a sterilized bit of glass or paper and dried at the temperature of the room. It is then ready to be examined or mailed. For the examination the only essentials are a moderately good microscopic outfit and a pure culture of Eberth's bacilli of proper attenuation. On this point Dr. Johnston in a communication received yesterday (January 10th, 1897) says "In my work in serum diagnosis done jointly with Dr. D. D. MacTaggart, we recently met with a series of peculiar partial reactions in which the dried blood solution from many perfectly healthy persons gave a very decided agglutination. The blood serum from the same persons was found much less liable to give these pseudo-reactions. This made it less easy to exclude other febrile diseases, and, as with this test accuracy in the negative diagnosis is of great practical importance, others who may meet with similar pseudo-reactions will be interested in learning how they may be avoided.

"These pseudo-reactions were not encountered in our earlier cases when attenuated cultures were used. They began to appear when we employed short-time virulent cultures and disappeared again on resuming the use of attenuated ones. Active, virulent cultures intensified by daily transplantation and growth at body temperature were therefore not suitable for the dried blood test. Where only active cultures are employed, we do not think that the dried blood method can be considered to have had a fair trial.

"The explanation of this difference appears to be that the serum contains relatively less of the substances causing agglutination than solution of the entire blood. Hence solutions of the entire blood react more intensely to the test than solutions of the blood serum alone. This was the reverse of what we had anticipated.

"It is found that old laboratory stock cultures kept at room temperature and transplanted at intervals of about one month give us the best results. Bouillon test cultures grown from this stock for twelve to twenty-four hours at body tem-

perature are found to react decisively with solutions of typhoid blood or typhoid serum, the reaction being as a rule well marked within fifteen minutes. With non-typhoid blood or serum solutions, the same test cultures give no reaction even after 24 or 48 hours contact. Intra-peritoneal injections of 1 c. c. of such living bouillon cultures produces in guinea pigs a marked blood reaction and immunity without much disturbance of health. We find that the best results in cases of dried blood are obtained with cultures where the motion as seen under the microscope is of a rapid, gliding character, but free from darting movements. If the movement is sluggish, owing to too great attenuation of the culture, a few daily transplantations at body temperature will make it more active. Exact estimation of the degree of dilution has not been found necessary for ordinary diagnostic work when attenuated cultures are used. A very faint tint in the drop examined usually indicates sufficient strength. The solution should not be thick and viscid."

A little sterile water dropped on the dried blood and allowed to remain two or three minutes will dissolve all that is necessary of the antitoxin. This should be thoroughly mixed with a drop of bouillon or dissolved gelatine culture on a cover-glass, and the whole suspended as a hanging drop in a cell slide. In ten or fifteen minutes all motion of the bacilli from place to place will have ceased, and the bacilli will have become agglutinated in small islets or masses.

In order to exclude as far as possible all sources of error, control observations should be made. The bacilli should be examined to see that they are motile. They should also be examined in connection with blood that is known to be typhoid and with healthy blood, and in negative cases the blood itself should be examined to see that it contains no motile bacteria. If the result is negative, future examinations should always be made as long as a doubt exists as to the nature of the disease.

I have also received a letter from Dr. Lambert, Bacteriologist of the Board of Health of New York City, which says—"In making Johnston's typhoid test we find so many non-typhoids giving a decided clumping and some motility remaining, that we think now that it is safe to say 'typhoid reaction' only in specimens where the inhibition of motility is immediate and nearly, if not quite complete, and no actively

motile bacilli remain. The clumping may be immediate, or may come on slowly and may be more or less complete. If in five or ten minutes this is not so, it is not safe to say 'typhoid reaction.' \* \* \* The amount of blood mixed with the culture on the cover glass makes sometimes a great difference in the reaction."

Professor Johnston says—"The one indispensable factor is perfect purity of culture." The one which he uses is said to have come originally from the Berlin Hygienic Institute. The doctor very kindly gave me a supply which I shall be pleased to share with any of you, or to give you any aid in my power in making diagnoses.

The mind of man is incapable of estimating the value of the service which this discovery may render to the medical profession and to humanity. If its future performances are at all commensurate with its present promise, it will become the recognized method of diagnosing, not typhoid fever only, but all of the specific infections, and by substituting positive knowledge of the nature of these diseases for guess work it will simplify our therapeutics and revolutionize the practice of medicine.

Finally, since the presence in the blood of the antitoxin of typhoid fever is apodeictic evidence of the presence of that disease, it will enable me to prove beyond any peradventure the truth of the declarations which I have been so bitterly criticized for making, that "typhoid fever can be aborted."





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## Editorial.

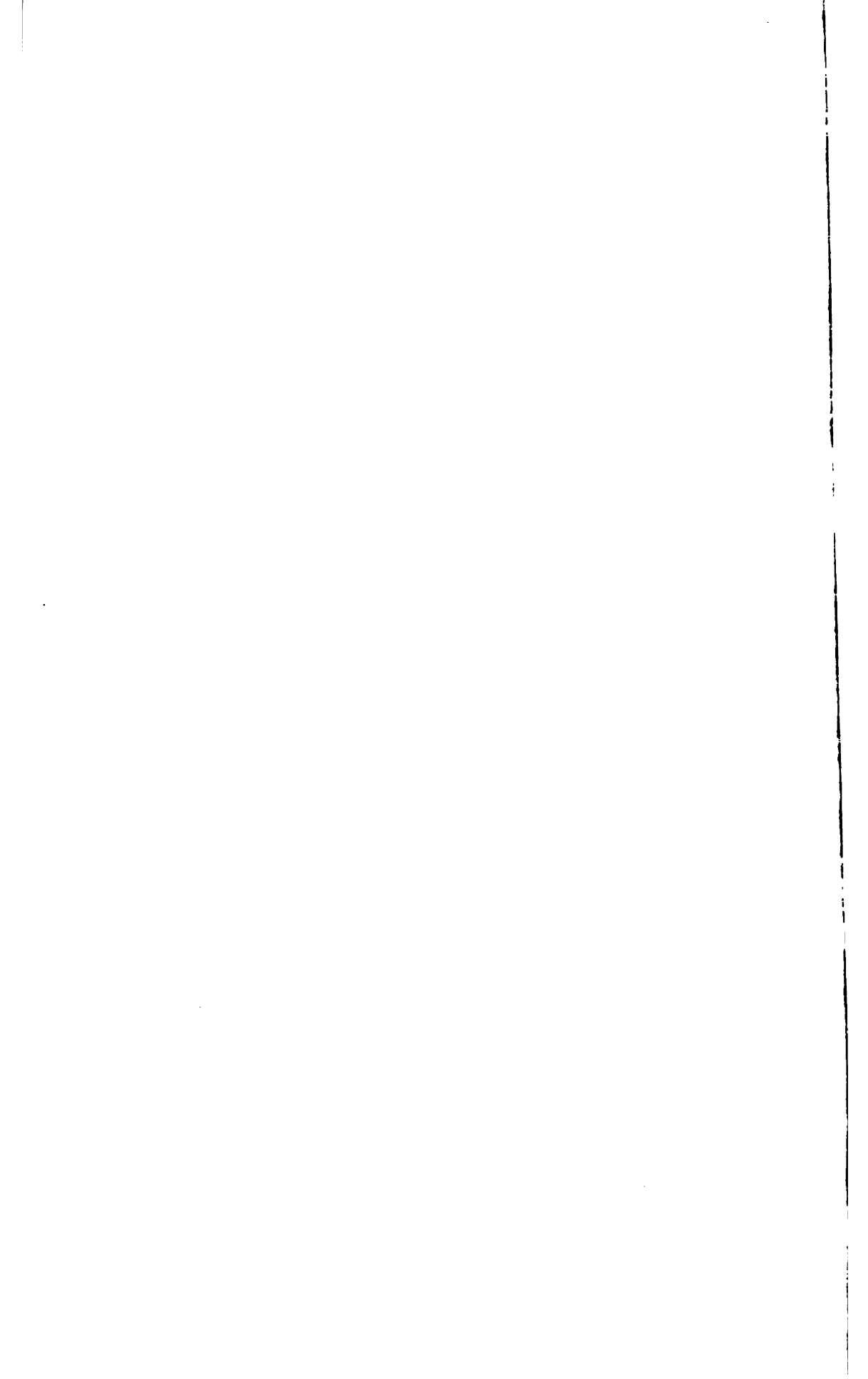
### A PARASITIC DOUBLE MONSTER.

This monstrosity was born April 12, 1896, of apparently healthy parents, Mr. and Mrs. S. McPherson, at Lorain, Ohio. The parents were extremely sensitive in regard to it, and long refused to have any picture made or description printed. However, when the child died, which occurred on the 14th of the following August, they consented to have photographs taken, but firmly refused to allow an autopsy. We are indebted for the photographs from which our engravings were made to Dr. A. N. Garver, who has also kindly answered our numerous questions eliciting a history and description.



*Cleveland Medical Gazette.*

**A PARASITIC DOUBLE MONSTER.**



The mother was forty-one years of age, of German descent, and this was her fifth labor. Dr. Garver had attended her in labor about three years previously, when everything transpired normally. There is no history of any monstrosity or malformation in the other children or, so far as known, in the family of either parent. The mother was in good health before and throughout the pregnancy, excepting that in the last month she had an attack of "winter cholera." There was no history of any "maternal impression." She had been in labor about two hours when the doctor was called. He noted the pelvis normal in size, the os dilated to about the size of a silver dollar, the membranes ruptured and the head presenting. He soon observed something unusual in the presenting part, but could not determine what it was. Pains were regular and the os soon dilated sufficiently to allow the presenting part to descend into the pelvis, when it proved to be a head with what the doctor then thought was a fetal tumor attached. Labor was rather slow at this stage, but the contractions continued to be regular and strong and there was some advancement. Patient was in the dorsal position. Owing to the peculiar shape of the presenting part she was changed to the left side. The pains were strong and expulsive and in a short time delivery was effected with only a slight laceration of the perineum. At first the child or children seemed lifeless, but a few moments' work established respiration in the principal one, to which was attached the single umbilical cord and placenta. Examination revealed one fully developed male child, upon the right side of whose head was attached the head of a second child, with the face looking backward and slightly to the right. This face was not fully formed, but rudiments of eyes, nose and mouth could be plainly distinguished although there were no cavities to nostrils or mouth. Belonging to this second head was a small body with a left upper extremity and two lower extremities, not so large or fully developed as the main child, but still fairly well developed. The only connection between the two children was through the head, and as is usual in joined twins, the connection was through homologous parts, being in this case the right parietal and occipital regions of each head. The bond of union was apparently bony and very firm. The posterior fontanelles were much larger than usual in both heads, and

pressure upon them would cause the larger child to cry, and the limbs of both to move. The parasite derived all its nourishment through the circulation in the head. No heart-beat could be detected in its chest. It had no anus and only rudimentary male genital organs.

According to the classification of those who accept the theory of fission of a single germinal area as accounting for such a monstrosity, this one may be placed in the order *Terata anadidyma*, signifying that the monster is double and that cleavage took place from below upward. The genus is named from the part common to both, or by which they are joined—*Craniopagus*, and because they are not equal, but one depends upon the other for sustenance, there is a further appellation—*parasiticus*. After all it differs only in degree from those congenital tumors which contain bones, teeth, hair and fat. The head of the principal child, if not that of the other, was undoubtedly hydrocephalic, having the characteristic globular shape, with the eye-balls depressed and protruded. The child took nourishment and continued to live as stated during four months and two days, when death was caused by cholera infantum. Owing to poor light in the room a good photograph could not be secured, but the accompanying pictures give a fair idea. However, the head of the parasite was larger than one would infer from the picture, hanging down behind and being nearly as large as the main head.

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### IS PEDIATRICS A SPECIALTY?

We take the liberty of reproducing here an editorial which appeared in the January number of the *Archives of Pediatrics*. Says the editor:

“We have several times had occasion to refer to this question and it is again brought to notice by an admirable address by Dr. S. W. Kelley on the past, present and future of pediatrics, an abstract of which will be found on another page of this number. The subject has elicited considerable discussion of late and very diverse opinions have been expressed regarding it. The diversity of opinion arises largely from the lack of agreement regarding the meaning of the word specialty. The word varies greatly in its significance as applied to different departments of medicine.

The specialist on the eye, skin and throat, in most cases devotes his attention wholly to his own department and refuses general practice. There are, on the other hand, medical men in New York who have the reputation far and wide as specialists on diseases of the heart and lungs.

Patients are sent to them from all parts of the country for special advice.

Yet, so far as we know, there is not a man in the city who devotes himself exclusively to the diseases of these two organs and refuses consultations on other diseases.

They practice the specialty of general medicine, which includes all the various general febrile diseases and diseases of the abdominal organs. While the term *expert* might perhaps be more appropriately applied to them, these men are usually considered and referred to as specialists in diseases of the heart and lungs. The so called abdominal surgeons are almost without exception either general surgeons or gynecologists.

There are, in fact, close specialties in which the practitioner confines himself strictly to his department, and there are broad specialties in which the practitioner becomes an expert but does not and cannot limit himself entirely to one class of diseases.

Of this latter class, pediatrics is a most striking example. It is an offshoot of the department of general medicine and must always continue to be closely allied to it. This is partially true of every specialty.

Pediatrics is, however, as proper a specialty as is ophthalmology.

Man, the highest animal of creation, starts in life the most imperfectly developed and the most helpless of all.

The formative and developmental period, therefore, is in many regards the most important one of his life. Hence, the proper management of infant man in health and the treatment of the many diseases peculiar to this period of growth and development form a specialty of very great importance. The truth of this statement is not modified by the fact that the majority of sick children are treated by the general physician. He may become expert also, in gynecology or laryngology, but they become none the less specialties.

That pediatrics is the special department in which the general practitioner most practices, does not render it the less a specialty.

Although a very broad one, pediatrics is in every sense of the word a specialty, in which the most common practitioner is the general physician. But there are, also, numerous practitioners who as truly merit the name of specialist as does the dermatologist or neurologist. It is true that the number of men who devote themselves exclusively to the diseases of children is comparatively small. Most pediatric practitioners, like the specialists on diseases of heart and lungs, become expert in their own department, but are also skillful in general medicine.

One of the most learned pediatricists of this country is not infrequently called in consultation in difficult and obscure adult cases, largely because the vast knowledge he has gained in the study of diseases of children has rendered him conversant with all disease, at whatever age it may occur.

It is in fact impossible to be a successful pediatricist without being at the same time a good general practitioner."

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#### PHYSICIANS' TAX IN NORTH CAROLINA.

Let all those physicians in this state who feel imposed upon by the law requiring them to pay five dollars for registration of their diplomas read the following and consider what their brethren in another state have been obliged to endure. We, in Ohio, have still something for which to be thankful, and are ready to send our sympathies and if it were possible our aid, to free the profession of North Carolina from so unfair and outrageous a law. If one considers ever so briefly the benefits bestowed upon the public by the medical profession—benefits for which no pecuniary reward is ever asked or expected, and the hardships and dangers daily incurred by physicians, while they are at the same time held by the law strictly accountable for their professional conduct, the iniquity of such an oppressive taxation becomes galling in the extreme. We sincerely hope the physicians of North Carolina will take the matter up in a systematic manner, through proper organizations, rise in their might and secure their rights.

The editorial of the *Charlotte Medical Journal* says:

Two years since an obnoxious and burdensome law was passed by the Legislature of North Carolina, which imposed

a tax of ten dollars a year upon each physician practicing medicine within its bounds. The medical profession and press of the country at large unanimously condemned this action and were loud in their denunciation of the outrage. That the tax is unjust and class legislation aimed at a most worthy and humane portion of the community, no one can gainsay. No body of men are more deserving of consideration by the State than are physicians, and the legal proposition that taxation must bear equally upon classes has been signally violated in this instance. The economic value of the physician's voluntary and charitable services to his State is well nigh incalculable. The human lives saved and perpetuated through the humane efforts and free services of this class of citizens cannot be estimated alone in dollars and cents, yet by these standards they would approach millions every year. At the ensuing term of the Legislature we trust that steps will be taken to repeal this iniquitous law and lift this burden from those who are in many instances really unable to bear it. We desire that the profession of the State, who are always upright, fair and zealous for what is good in the body politic, will unite and bring their influence to bear upon their several county representatives and have this law stricken from the statute books. There are several members of the legislative body who are themselves physicians and understand the nature and character of the oppression full well. We trust they will be on the alert and use what information and ability they may possess to further the suggestions here made. With proper efforts, since there will be no good reason for an opposition, this law can be repealed.

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## **Periscope.**

### INDICATIONS FOR SPLENECTOMY.

Algiati reported a case of splenectomy for enlarged malarial spleen, in a female 22 years old, who had had malarial infection since childhood. For fourteen months before operation there was increasing enlargement of the abdomen. She was anemic, and her skin of a yellowish pale color. The tumor extended from the margin of the ribs to the pelvis, was movable and tender and caused considerable pain, especially on moving. There was no leukemia. The operation was done without much difficulty and the patient made a good recovery.



The author collected thirty-five splenectomies for malarial spleen with twenty-four recoveries and eleven deaths. The principal danger in the operation is hemorrhage—the vessels are much enlarged and easily torn.

The malarial anemia predisposes the patient to shock. Rupture of malarial spleen has been observed. Internal medication should be first employed and if of no avail the operation may be indicated. The operation does not give protection against subsequent malarial attacks.

#### A CASE OF GENERAL MELANOSIS ACCOMPANYING A MELANO-SARCOMA.

H. Mehrer reported in *Wiener Med. Pres.* a case of melano-sarcoma of the leg, with infiltration into the left pleural cavity. The patient died rather suddenly of hemorrhage. There was no autopsy.

The latter part of his life gradual change of the color of his face was observed. It became progressively darker. The entire upper extremity was so modified during the last week before death that he much resembled a negro. There was also decided melanuria.

#### SERO-THERAPY IN MALIGNANT TUMORS.

Fedorow, in *Annalen der Russischen Chirurgie* reported ten cases—nine of sarcoma and one carcinoma. In no case was there a cure, not even a lasting improvement noted. In two cases the progress of the growth seemed lessened. After a number of the injections the pain was diminished for a time. There was usually a well marked reaction, sometimes very great impression upon respiration. The author would recommend the treatment only in inoperable cases, and to relieve pain.

#### ON THE OPERATIVE TREATMENT OF CANCER OF THE STOMACH.

Schonwerth, in *Münchener Med. Wochenschrift*, after a critical review of the work of Billroth, Hacker, Czerny, Kocher, Kronlein and Mikulicz, is unable to find a sufficient number of successes to warrant the risk of such an extremely large percentage of immediate mortality, and of those who recover from the operation, almost certain death from recurrence. The author believes that when means of early diagnosis shall have been perfected, pylorotomy will become a more promising operation. Gastro-enterostomy is a safer operation, but gives at best only temporary relief. On the whole the surgical management of cancer of the stomach is anything but satisfactory.

G. W. C.

## **New Books.**

**ANATOMICAL ATLAS OF OBSTETRIC DIAGNOSIS AND TREATMENT.** By Oscar Schaeffer, M. D., with 145 illustrations. New York: Wm. Wood & Co.

This volume is one of a series of Medical Hand Atlases issued by this well known firm. The Atlases are upon various branches of Medical and Surgical Sciences, and are sold by subscription at \$15.00 for the series of five, although each volume is complete in itself. The one before us deals with the morphology of the female pelvic organs, as the anatomical basis of the physiological and pathological phenomena of pregnancy and labor. The plates are accurately drawn and beautifully printed in colors. Many of them must have required numerous impressions to secure the delicate colorings which give them such a natural appearance. Directly opposite to each plate is a description of the same, with reference to that portion of the general text which it illustrates; and in the text reference is made to the plates in such a way as to make comparison easy. The Atlas is really a most graphic instructor and it is a pleasure to follow its systematic demonstrations. It has involved a great deal of painstaking labor on the part of the author and the artists under his directions and a liberal use of money on the part of the publishers, and is worthy of appreciative patronage from the profession.

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**THE TONIC TREATMENT OF SYPHILIS.** By E. L. Keyes, A. M., M. D. Late Professor of Dermatology, Syphilology, and Genito-Urinary Surgery in the Bellevue Hospital Medical College etc. Revised edition. New York: D. Appleton & Co. 1896.

Older practitioners will recollect that in 1876 Dr. Keyes read an essay upon this subject before the Section on Dermatology and Syphilis in the International Congress at Philadelphia, which essay created considerable discussion by the profession. Some members of the profession understood the writer to claim that mercury cures syphilis because it is a tonic, whereas his meaning evidently was to prove that mercury may be so administered as to be a tonic, and not harmful (as it had previously been considered), and that by being used "within the bounds of tonicity it might still in the long run conquer the disease," being pushed from time to time to the specific dose. This little book of 78 pages is a revised edition of that original essay and not only demonstrates that particular phase of the subject, but will be found very useful reading as a text book on the treatment of syphilis.

TRANSACTIONS OF THE FIFTY-FIRST ANNUAL MEETING OF THE OHIO STATE MEDICAL SOCIETY. Held at Columbus, May, 27, 28, and 29, 1896. The State Society's transactions of 1896 make a very neat and attractive volume of nearly 500 pages, adorned with the portrait of President Dr. Dan Millikin as a frontispiece.

The editor for the year was Dr. C. N. Smith. The volume contains, as is usual, the list of officers and committees for the year, the minutes and discussions, list of delegates and members present. There is also a biographical sketch of the president, and the president's address, followed by the papers read at the meeting. There are obituaries of Drs. Wm. S. Battles, Thos. Jefferson Barton, Henry C. Beard, C. G. Comegys, T. M. Cook, Jonathan Morris, Joseph Price, and W. J. Scott.

The text of the Kimmel bill is also very properly incorporated in this volume. Then follow the names and addresses of the permanent members of the society, and the auxiliary societies with their lists of members. Altogether in matter and appearance it makes a very creditable volume.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF PENNSYLVANIA, VOL. XXVII, 1896.

This book has about the same number of pages as the Transactions of the O. S. M. S., and though the page is three or four lines longer the type is larger, making the amount contained very near the same in the two books. Besides the usual list of officers and members, the minutes, essays and discussions, (an enumeration of which lack of space forbids), obituary notices etc., there is a history of the society (covering 60 odd pages) by the secretary, Wm. B. Atkinson, A. M., M. D. No portraits of officers or members past or present are indulged in.

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THE SURGICAL PECULIARITIES OF THE AMERICAN NEGRO. By Rudolph Matas, M. D., Professor of Surgery, Medical Department, Tulane University of Louisiana etc., etc. Reprinted from the Transactions of the American Surgical Association Vol. XIV, 1896. 130 pages, paper cover.

This little book we have read with great interest and benefit. It records the opinions of a competent observer and careful student upon topics not satisfactorily elaborated and set forth in the surgical text books and treatises. After a chapter on Historical and other Preliminary Considerations, the author reviews the Anatomical Peculiarities and the physiological and pathological characteristics of the American negro. Then proceeding with the object of his undertaking he bases his treatment of the subject of Surgical

Peculiarities upon studies of the records of the Charity Hospital of New Orleans, which certainly affords unrivaled facilities for an inquiry of this nature. He makes comparative studies of the various surgical pathological conditions as occurring in the white and colored races—noting the relative frequency, severity, results etc.

The book will be found interesting whether perused by the anthropologist, the evolutionist, the philosopher or the practical surgeon.

A bibliography is appended which will greatly aid those who may care to pursue this and allied subjects farther.

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#### PAMPHLETS RECEIVED.

In most instances pamphlets mentioned here may be had by sending a request to the author. Kindly mention the *GAZETTE*, and enclose a stamp.

**FRACTURE OF THE ZYGOMATIC ARCH.** A simple method of reduction and fixation, with remarks on the prevalence, symptomatology and treatment of this fracture. By Rudolph Matas, M. D., Professor of Surgery, Medical Department of Tulane University of Louisiana etc. From *New Orleans Medical and Surgical Journal*.

**CLINICAL OBSERVATIONS UPON A CASE OF HEREDITARY SYPHILIS.** By Edmund Owen, F. R. C. S. Senior Surgeon to the Hospital for Sick Children, Great Ormond St., W. C. From the *Clinical Journal*.

**THE MODERN TREATMENT OF DIPHTHERIA IN PRIVATE PRACTICE.** By W. A. Walker, M. D., New York. From *Pediatrics*.

**LUMBAR LOCALIZATION.** By L. Harrison Mettler, A. M., M. D. From *Medicine*.

**ASCITES IN CONNECTION WITH GYNECOLOGY.** Hy Hunter Robb, M. D., Professor of Gynecology, Western Reserve University, Cleveland.

**THE IMPORTANCE OF A SYSTEMATIC MICROSCOPICAL EXAMINATION OF UTERINE SCRAPINGS AND OF EXCISED PIECES AS AN AID TO DIAGNOSIS.** Based upon the analysis of one hundred cases. By Hunter Robb, M. D. From *The American Journal of the Medical Sciences*.

**THE NECESSITY FOR THE MEDICAL INSPECTION OF EMIGRANTS AT PORTS OF EMBARKATION.** Address made before the Cleveland Chamber of Commerce, By Dr. R. M. Woodward, Passed Assistant Surgeon U. S. Marine Hospital Service.

**THE TREATMENT OF EXTRA UTERINE PREGNANCY, RUPTURED IN THE EARLY MONTHS, BY VAGINAL PUNCTURE AND DRAINAGE.** By Howard A. Kelly, M. D., Professor of Gynecology in the Johns-Hopkins University.

**REMARKS ON THE MANAGEMENT OF GLAUCOMA.** By Leartus Connor, A. M., M. D., Detroit, Mich. From *Journal American Medical Association*.

AN ORIGINAL METHOD OF USING DRY HEAT OF HIGH TEMPERATURE IN THE TREATMENT OF CHRONIC JOINT AFFECTIONS. By William E. Wirt, A. M., M. D., Ph. D., Professor of Orthopedic Surgery in the Cleveland College of Physicians and Surgeons.

HISTORY OF A CASE, IN WHICH FIVE YEARS PREVIOUSLY A PIECE OF STEEL WAS SUCCESSFULLY REMOVED FROM THE VITREOUS CHAMBER BY MEANS OF AN ELECTRO MAGNET. By Charles A. Oliver, A. M., M. D., one of the attending surgeons to the Wills' Eye Hospital etc., Philadelphia.

CLINICAL REPORTS. By Dr. William E. Wirt, M. D., Ph. D.

SUBMUCOUS LINEAR CAUTERIZATION. A new method for reduction of Hypertrophies of the Conchæ. By Norval H. Pierce, M. D., Professor of Otology, Post Graduate Medical School and Hospital etc., Chicago, Ill.

SYPHILIS OF THE NOSE WITH REPORTS OF CASES. By Norval H. Pierce, M. D. From *New York Medical Journal*.

SURGICAL CLINIC AT ST. MARY'S HOSPITAL, September 23, 1896. By H. O. Walker, M. D., Professor of Rectal Surgery, Genito-Urinary Diseases, and Clinical Surgery, Detroit College of Medicine. From *The Leucocyte*.

COLONO-ENTERIC IRRIGATION IN THE TREATMENT OF INTESTINAL OBSTRUCTION. By Edwin Pynchon, M. D., Chicago, Ill. From *Chicago Medical Recorder*.

GONORRHEAL IRITIS AND NON-SUPPURATIVE GONORRHEAL CONJUNCTIVITIS, AND THEIR PATHOLOGY. By William Cheatham, M. D., Professor of Ophthalmology, Otology, and Laryngology in the Louisville Medical College etc., Kentucky.

A BRIEF NOTE UPON A PERFECTED SERIES OF TEST WORDS intended for the Determination and Estimation of the Power of Accommodation. By Charles A. Oliver, A. M., M. D., Philadelphia.

CHEST DRAINAGE IN EMPYEMA. By J. J. Brownson, M. D., Dubuque, Iowa. From *Tri-State Medical Journal*.

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## Society Reports.

### CLEVELAND MEDICAL SOCIETY.

#### *Annual Meeting and Annual Banquet, January 8, 1897.*

The annual meeting of the Cleveland Medical Society, held at the Stillman Hotel in this city on the 8th of January, was an occasion of much interest. Officers were elected for the ensuing year, and an elaborate banquet was served.

The newly elected officers were enrolled as follows: President, Dr. M. Rosenwasser; First Vice President, Dr. C. A. Hamann; Second Vice President, Dr. T. A. Burke; Recording Secretary, Dr. P. Max Foshay; Treasurer, Dr.

F. C. Taylor; Censors, Dr. F. E. Bunts, Dr. J. M. Ingersoll, Dr. J. H. Belt, Dr. I. Friedman, Dr. J. P. Sawyer; Pathologist, Dr. A. P. Ohlmacher; Trustees, Dr. H. S. Straight, D. S. Hanson, C. B. Parker; Trustees for the Cleveland Academy of Science, Drs. Wm. E. Wirt, A. F. House, J. E. Cook, L. K. Baker, H. S. Straight, C. B. Parker, M. Rosenwasser, H. T. Clapp, D. P. Allen, W. H. Humiston.

The banquet, which was held in the capacious dining hall of the Stillman, was perhaps the most elaborate affair of the kind given by this society. The tables were beautifully decorated and were arranged in the form of the letter "E," the dignitaries being seated at a point where they could all be seen and heard distinctly by every member present. The menu was served in courses and the quality was highly satisfactory. As a word to the wise is sufficient, you are given the following pointer as a quotation from the bill of fare.

"For baser tribes the rivers flow  
That know not wine or song;  
Man wants but little drink below,  
But wants that little strong."

Next on the program was "The Intellectual Feast," to wit:

TOAST: "The Past." - - - RESPONSE: Dr. J. E. Cook.

"Fare thee well;  
The elements be kind to thee, and make  
Thy spirits all of comfort."  
*Shakespeare.*

"For I who hold sage Homer's rule the best,  
Welcome the coming, speed the going guest."  
*Pope.*

TOAST: "The Future." - - - RESPONSE: Dr. M. Rosenwasser.

"I know no way of judging of the future  
but by the past."  
*Patrick Henry.*

TOAST: "A Pioneer in Medicine." RESPONSE: Dr. G. C. E. Weber.

"Honour a physician with the honour due  
unto him, for the uses which ye may have of  
him, for the Lord hath created him."  
*Ecclesiasticus.*

TOAST: "The Relation of the Professions."

RESPONSE: Judge Conway W. Noble.

"The doctor sees all the weakness of man-  
kind, the lawyer all the wickedness, the  
theologian all the stupidity."  
*Schopenhauer.*

TOAST: "The Doctor as a Citizen."

RESPONSE: Mr. J. G. W. Cowles, President Chamber of Commerce.

"Before man made us citizens, great nature  
made us men."

*Lowell.*

TOAST: "The Progress of the Cleveland Medical Library."

RESPONSE: Dr. C. A. Hamann, Librarian.

"He that revels in a well-chosen library  
has innumerable dishes, and all of admirable  
flavour."

*W. Goodwin.*

TOAST: "The Amusing Side of a Doctor's Life."

RESPONSE: Dr. J. L. Dickson, of Ashtabula.

"Learn'd he was in med'c'nal lore;  
For at his side a pouch he wore  
Replete with strange hermetic powder,  
That wounds nine miles point-blank would solder."

*Butler.*

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Dr. R. M. Woodward, Toastmaster.

In commenting upon the after dinner speeches it must be said that they were all good and bespoke the peace and prosperity which have been so characteristic of this society since its organization four years ago. The remarks of the outgoing and incoming presidents were laden with history and hopeful prophecy.

The venerable appearance of DR. G. C. E. WEBER in response to the toast "A Pioneer in Medicine" was greeted with great applause, and as he detailed the interesting events which have marked the epoch of his life an unceasing interest was manifested. He stated that his career began with the introduction of ether as an anesthetic, and as he proceeded the attention of the society was called to the wonderful advancement and growth of medical science since that date.

The toast "The Relations of the Professions" was responded to by JUDGE CONWAY W. NOBLE in his usual gracious manner.

The profession were reminded that the most satisfactory sight to a lawyer is to see a doctor on the witness stand, cool and collected, as much a master of himself as though in his own office, quietly, without prejudice or bias, giving medical testimony, but that on the other hand it was most distressing to see one certain of nothing but his own ignorance, hesitating, perspiring, abashed, the butt of counsel and the worst enemy of the one calling him.

He said that both professions had done much to dispel the dust-clouds of ignorance and moral desolation, which pervade the court room and society generally.

"The Doctor as a Citizen" was described by MR. J. G.

W. COWLES, President of the Chamber of Commerce, and if we as a profession are able to see ourselves in the mirror held before us by this worthy gentleman it must of necessity engender a feeling of honor, and a sense of responsibility which will add dignity and aspiration to our noble calling. He stated that "Nations are wont to honor their soldiers more than their doctors, as defenders of the people's lives and properties, but the doctors have proved themselves a coast-guard against more deadly invasions than those of hostile fleets and armies," and went on with statistics to prove the truthfulness of this statement.

DR. C. A. HAMANN, Librarian of the Cleveland Medical Library, made an interesting address relative to its prosperity and growth.

In responding to the toast "The Amusing Side of a Doctor's Life" DR. DICKSON, of Ashtabula, remarked that every court must needs have its fool and that the unlucky job had fallen to his lot this time. The society was much amused by several stories told by this genial doctor, and it is very apparent that throughout his prosperous career he must have dispensed much good cheer with his pills.

DR. R. M. WOODWARD, U. S. Marine Surgeon of this port, acted as toastmaster, and also had the honor of acting as Chairman of the Committee on Arrangements. The doctor is about to leave us to take up the duties of an important station elsewhere and will be much missed by the members of the Cleveland Medical Society, who have held him in high esteem, and our good wishes will go with him through life.

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*Regular Meeting, January 22, 1897.*

Meeting was called to order by the newly inaugurated president, DR. M. ROSENWASSER, who read the paper of the evening, it being his inaugural address to the society. In this paper the doctor set forth the duties of an ideal medical society, and urged the hearty co-operation of members in making the Cleveland Medical Society an ideal one for the coming year. In order to accomplish this, the doctor felt that it was incumbent upon each and every member to concentrate his earnest efforts upon one society, and intimated that the Cleveland Medical Society should be the one to demand the most attention.

In accordance with the announced program, a general free-for-all exhibition of patients and pathological specimens formed part of the evening's entertainment.

Patients were exhibited by Drs. Corlett and C. W. Smith, and pathological specimens were presented by Drs. Bard, Wenner, Smith, Allen and Ohlmacher.

DR. N. STONE SCOTT gave an interesting display of X



ray photographs, and reports of special and standing committees were received.

At the close of the meeting our newly installed president said that in keeping with a time honored custom he wished to invite the society to meet him next door, at Stranahan's restaurant in the Arcade, to partake of a light luncheon. This sentiment seemed to be heartily seconded by all present, and a general stampede for the lunch room was made.

The Cleveland Medical Society is largely composed of young men, strong in limb and of capacious appetite, always ready and willing for any good work. After the repast we were highly entertained by remarks from our president, Dr. Rosenwasser, Dr. O. B. Campbell, president of the county society, Dr. R. M. Woodward, and Dr. Wenner. The last two speakers indulged in story telling, much to the edification and merriment of those present.

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*Regular Meeting, February 12th, 1897.*

The meeting was called to order by its president, DR. ROSENWASSER, and the customary large attendance was present.

DR. C. A. HAMANN presented a patient under treatment for posterior dislocation of the second phalanx of the thumb. The doctor stated that this injury was a rare one, and very difficult to treat by ordinary methods. Several attempts had been made by another physician to set the thumb before the patient was referred to him, and he had failed to set the joint under anesthesia, without operative procedure. It became necessary to cut down upon the joint, open the capsule and divide certain tendons and muscular tissues before bringing the bone into place. A very satisfactory result had been obtained, and the patient was able to move the joint with considerable freedom.

Under the regular program for the evening DR. R. M. WOODWARD of the Marine Hospital Service read a paper "On Bubonic Plague." He stated that his duties had never called him far enough East to bring him in contact with any of these cases, but he had the opportunity to see considerable literature on the subject, in connection with the marine service, the most of our statistics upon this subject being furnished by American consuls and gathered from reports of the Marine Hospital Service.

At present this much dreaded disease is confined to India and China, being disseminated for the most part among the ignorant and filthy portions of society, and in cities lying in low territory where drainage and other hygienic measures are wanting or poorly established. The death rate during the visitations of this most pestiferous malady is

something appalling, and the dead are hauled off in carts, piled one upon another. The doctor graphically described a tour of one of these death wagons stating that a man preceded the cart ringing a bell and crying "Bring out your dead."

Over one hundred million Mohammedans make annual pilgrimages to Mecca, which they consider to be holy ground, and carry dead bodies with them (in all stages of putrefaction) that they may be buried in this holy place. These annual pilgrimages are looked upon as being a prolific agency for the dissemination and spread of contagious diseases. Hundreds die by the wayside, but to die on one of these pilgrimages is considered to be an honor, and to die in Mecca is a sure passport to the Elysian fields.

Some of the symptoms of the plague are chills, high fever, headache, diarrhea, buboes and inflammation of other glands and eruption of the skin. Rats, mice and other small animals are first affected during an epidemic, and are probably the means of spreading contagion. This disease is so rapidly fatal and of such an extremely contagious character that but little is known as to its proper treatment. Hygienic measures, however, seem to be sufficient to prevent its spread and to lend immunity to countries where anything like proper drainage and cleanliness are enforced. Egypt, which was considered to be the original home of this disease, has not been affected since 1846. The plague reached the shores of the United States in 1812 and 1814, but not since that time. Our national quarantine serves us as ample protection from the inroads of such contagious diseases, and we are probably not liable to the spread of any such epidemics as long as suitable hygienic measures are vigorously enforced in our large cities.

This paper of DR. WOODWARD's, like some of his former papers on the subject of foreign bred diseases and national quarantine, was most interesting and instructive.

Next on the program was a paper by DR. A. R. BAKER entitled "Eyesight versus Hearing in our Primary Schools." The doctor stated that the eye is but a defective optical instrument at best, and quoted Helmholtz as saying that if his optician should deliver an instrument to him so imperfect as the average human eye he would return it. As few apples, pears or turnips are round and perfect, so it is with the eye, and Nature seems to furnish us with very few devoid of all imperfections. Many children in our public schools are claimed to be either myopic or hypermetropic, and words in common print are seen imperfectly and are often mispronounced. The doctor claimed that faults in vision were often charged up to the pupils as stupidity, while in his opinion many of the methods now pursued indicate rather a stupidity of the school system or of the teachers in charge.

He claimed that the ear is an organ much more acute in sensibility than the eye, and argued in favor of more oral teaching in our schools. He thought that the eyes of children in the primary grades were taxed altogether too much and that reforms in the method of teaching were much needed.

In the discussion which followed DR. L. B. TUCKERMAN fully coincided with the statements made in the doctor's paper and said that he thought much harm was done to the eyes of children by the present method of teaching copper plate writing. He stated that children of these ages were naturally awkward in their motions, particularly on fine work, as the length of their limbs was constantly changing as a result of growth, and that the necessary motion required to perform a certain piece of fine work must necessarily be modified accordingly. He called attention to the fact that many, if not most of our great men and our prominent business men hailed from the country, and are educated in the little red school-houses where no such system is taught, and was of the opinion that such an education was more conducive to great minds, and that the systems taught in city schools are more conducive to the propagation of clerks and assistants.

DR. D. B. SMITH was of the opinion that too much written work was given to the pupils, but that the higher grades are more affected by this class of work than the lower.

DR. SHERMAN wished to second all that had been said by Dr. Baker, and stated that he was paying for outside instruction in the way of oral lessons for his son, and thought that the results derived were far better, as the reasoning powers were better appealed to in this way. The discussion was continued at much length and with great interest by Drs. Straight, Sawyer, Allen, Herrick, Wooldridge, Dutton and others.

DR. DUTTON took the part of the public schools and slyly remarked that he thought some of our doctors might be a great deal more stupid than they really are, had it not been for the public schools of Cleveland.

C. W. S.

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## Correspondence.

WIEN, *January 7, 1897.*

*Editor Cleveland Medical Gazette:*

DEAR DOCTOR:—After a stay of over three months in Europe in the pursuit of gynecological study, I am prepared to say that Europe offers some advantages that the U. S. does not have. I can safely say, though, that a great deal of operating is done after American methods, with

American instruments and technique, showing that American gynecologists are always at the front and doing work in the interest of woman the world over.

Most of my time thus far has been spent in Prag working in the clinic of Prof. Pawlik of the Bohemian University, and I can say his work, both in quality and quantity compares most favorably with any in Europe, particularly his catheterization of the female ureter, without the use of the cystoscope, and I have seen him repeatedly relieve a large hydro-nephrosis or pyonephrosis without narcosis. The cystoscope causes great pain, and there is always danger of rupturing the urethra.

Prag is too much neglected, I think, by medical men going abroad in the interest of study, material is very abundant in all departments and as a rule handled by good men, and when one sees the scramble for places in Vienna he must be somewhat surprised that more do not visit Prag, where I am sure they would be welcomed with open arms and allowed without effort to work almost as they wish.

Perhaps few could avail themselves of the Bohemian University, but the German could be well utilized for good work. The expense I am sure would be much less. Board is good and rooms are cheap.

The gynecological clinic had last year almost 3000 patients, 500 of whom were admitted to the hospital; 350 of these were operated upon, averaging nearly one per day. Antisepsis in this clinic is most thorough, every convenience being prepared for the best kind of work. The mortality for the year I am at this moment unable to state, but only one has died during my stay, and that was not the best subject for operation.

The Maternity building is comparatively new and every convenience is there for the best of work. The material is most abundant and well taken care of; here, too, a great many visitors could profit by a short stay, apartments being prepared at very little cost for anyone wishing this class of work.

I expect to stay in Vienna for two or three weeks longer, then visiting Berlin and Paris, perhaps Hamburg, and hoping to arrive home during March.

Yours very truly,

A. F. SPURNEY.

## Notes and Comments.

*"We rise to explain."* A Western exchange says that a practical revivalist requested all in the congregation who paid their debts to rise. The rising was general. After they had taken their seats, a call was made for those who didn't pay their debts, and one solitary individual arose, who explained that he was an editor, *and could not, because the rest of the congregation were owing him their subscriptions.*

**Dr. S. N. Alban**, Perrysville, Ohio, writes, "Permit me to congratulate you upon the improved character of the *GAZETTE* under the new management.

**Antitoxin Collective Investigation (Second), American Pediatric Society.** The American Pediatric Society is encouraged to ask the co-operation of physicians in a further collective investigation. Laryngeal diphtheria is believed to furnish a crucial test for antitoxin. The present aim is to ascertain: (1) What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment? (2) What percentage of operated cases recover?

The society asks the record of cases of diphtheria involving the larynx, whether operated or not, occurring in private practice in the United States and Canada, treated with antitoxin. It is expected that the cases occurring this year will be treated with reliable preparations of the serum, will be treated early, and will be given efficient doses. The second report is designed to be a study of cases occurring between the closing of the first report, May 1, 1896, and the closing of the present collective investigation, April 1, 1897.

In order to secure data which will make the tables complete, circulars containing blanks for ten cases have been printed and are now ready for distribution. It is desired that physicians shall fill out these blanks, as cases occur, not trusting to memory, and shall urge their friends having similar cases to do the same. Circulars can be had by applying to the committee (address below). Several groups of cases in the first investigation arrived too late and were lost to the report. It is desired that the circulars as soon as filled (ten cases) be returned to the committee. The collection of cases must close at the end of March, 1897.

For extra circulars (blanks), for returning circulars (filled) and for further information, address the chairman of the committee, **W. P. NORTHRUP, M. D.**, No. 57 East 79th street, New York, N. Y.

**A New Clinical Symptom** was the subject of a paper presented at the last Pan Am. Med. Congress, by **Dr. Silvio Tatti**, Buenos Ayres, Argentine Republic.

The new sign consists of a slight oscillatory movement, which is more especially produced when the lower limbs are crossed in a natural position of rest. It is characterized by an oscillation which is visible on looking at the extremity of the foot.

It is also produced when the subject is seated on the edge of a table, and without having the limbs crossed; the movement is well marked and is characterized by a special tracing, which is obtained by means of Dudgeon's sphygmograph, but somewhat modified. This symptom in the foot is constant in all persons, whether children, adults or old

people; it is therefore physiological. It is not due to a compression of the vessels.

The number of movements almost coincide, in normal subjects, with those of the radial pulsations, although they not quite reach the number of the latter.

*Theories which explain it.*—It is explained by the contraction of the mass of all the arterioles and capillaries which supply the region under study, and these phenomena are not unconnected with the vascular nervous filaments.

It might be asked, whether the capillaries possess contractile powers. Physiology reminds us that the cells which constitute them, preserve the property of changing in form and of modifying more or less the calibre of the vessel, and it is through the persistency of these characteristics, that diapedesis takes place.

*Apparatus and manipulation.*—The registering apparatus is Dudgeon's sphygmograph, in a modified form.

In order to obtain the tracing of this movement, he employs a small apparatus that transversely embraces the foot, and from its central part, raises a short metal rod, which is intended to come into contact with the recording plate of the sphygmograph.

The normal tracing is composed of a line of ascent, a vertex and a line of descent.

The line of ascent is almost vertical, the vertex is slightly rounded, but without presenting any other modification of importance. The line of descent presents various undulations, but one of them is much more pronounced than the others. We can say that it is normally dicrotic. The tracings obtained with the subject seated on the edge of the table and without crossing his legs, are similar to that described, although rather smaller. The numerous tracings presented can be seen in the original work.

In different pathological conditions of the subject, he noted very sensible modifications in the diagram, thus giving great importance to the new symptom.

**Disposition of "Drunks."** The attention of legislators is invited to a method of combined discipline and drink cure adopted by a post surgeon of the United States Army, with a class of periodical drunkards who regularly report (in police court? let us add) for treatment and a little rest after the usual pay-day spree. Every man who reports at the hospital in a state of simple alcoholism is treated as a case of alcoholic poisoning, taken immediately to the operating room, his stomach emptied by the use of a stomach pump and thoroughly washed out with warm two per cent. soda solution. After this he is given a bowl of hot beef extract with cayenne pepper and allowed an hour's rest, after which he is perfectly able to do his duty.—*Modern Medicine*, Dec. 1896.

**The Ohio State Medical Society** will meet this year in Cleveland, May 19th, 20th, and 21st. A program has not yet been issued, but there are prospects of a very full and interesting meeting. Judging from the activity of the committee of arrangements there is certain to be a general good time.

**The Ohio State Pediatric Society** will meet in Cleveland this year on the 18th of May. Quite a gathering is expected, not only of the workers in pediatrics in this state, but some adjoining states. The committee promises to issue a program soon.

**The Belmont County Medical Society** met at the Windsor Hotel, Bellaire, O., February 23, 1897, at 1:30 p. m. The program was as follows:

Valedictory Address, Dr. J. C. Workman, Uniontown, O. Inaugural Address, Dr. J. W. Cooper, Bellaire, O., Papers: Neuritis, Dr. J. S. McClellan, Bellaire, O. Pneumonia, Dr. C. C. Cole, Bridgeport, O. Cancer of the Breast and its Removal, Dr. J. R. Parry, Woodsfield, O. Paper, Dr. J. P. West, Bellaire, O. J. C. Workman, Pres., W. O. Huston, Sec.

**We regret having to omit "Among Our Exchanges"** from this number. Dr. Tuckerman, who so acceptably labors in that department, was in attendance during the last illness of his father, Professor Jacob Tuckerman, A.M., Ph.D., who died at South New Lyme, O., on February 5th. Professor Tuckerman devoted fine abilities and the energy of a long life to the cause of education. He was born in Sterling, Windham county, Conn., July 31, 1824. He came to Ohio in 1839, entered Kingsville Academy, and completed his studies at Oberlin College in 1846. He was then superintendent of the Ashtabula county schools for two years, and built Orwell Academy, which became a popular school under his management. He was for three years professor of mathematics in Farmers', now Belmont College, at Cincinnati, at the end of which time he was made president of the college, and remained at the head of the institution for six years. He then took the principalship of Grand River Institute, Austinburg, O., where he remained fourteen years. In 1882 he accepted the presidency of New Lyme Institute, where he resided until the time of his death.

**"The Cleveland Medical Gazette** has donned a dress of attractive color and design. I offer my congratulations. The sombre tint of the recent cover was far from in keeping with the interior of the journal, which has ever been of the highest order. There's no gem, however brilliant, that's not enhanced in value by a handsome setting."  
—*American Medical Journalist.*

**"The Cleveland Medical Gazette.** It is announced in the November number of the GAZETTE that it has passed into the hands of a corporation to be known as the Medical Gazette Publishing Company, which has a capital stock of \$10,000. Dr. Samuel W. Kelley will still continue editor of the GAZETTE with Dr. Frederick K. Smith as business manager. The future prosperity of the GAZETTE, judging from its past history, seems to be assured.—*New York Medical Journal*.

**The Brevity of Adoration.** Dr. H. G. Smythe, writing to the *Texas Medical Journal*, says that the following verses are from the Epigrammata of John Owen, a Welshman (1560-1622), a sketch of whose life may be found in the Encyclopedia Britannica:

"God and the doctor we alike adore,  
But only when in trouble, not before;  
The trouble o'er, both are alike requited—  
God is forgotten and the doctor slighted."

**Annual Report of the Secretary of the City Hospital Staff.** The secretary of this body, Dr. S. W. Kelley, has rendered his sixth annual report to the Director of Charities and Corrections. The report states that while there have usually been some changes in the *personnel* of the staff, the past year has been comparatively uneventful. The staff remains the same as last year, and the work has gone along very smoothly and satisfactorily. "The most notable change about the hospital is the enlargement of the laboratory and its equipment. For this important aid especially, as well as for the intelligent and generous response to all the needs of the Hospital, the Head of the Department may feel assured of the grateful appreciation of the Medical Staff." The fact is noted that during the past year male nurses have been dispensed with and only female nurses employed, to the manifest improvement of the service. The professional work of the staff is set forth in a number of tables which are too lengthy for reproduction here. A few of the facts and figures studied out of these tables may be stated briefly. The first table shows the nativity, age and sex of each patient admitted during the year. It appears that the Hospital has cared for 1 from Arabia, and 1 each from Armenia, Finland, Turkey and Holland, 1 whose nationality could not be ascertained. There were 2 from Denmark and 3 from Syria, 4 each from France and Sweden, 7 each from Italy, Switzerland, Slavonia and Wales, 12 from Russia, 13 from Poland. Bohemia and Canada each furnished 18. Four hundred and eight patients were said to be natives of the U. S., 26 of these being infants. These patients represent 91 different occupations, which are shown, although 86 males and 49 females had no occupation. The next table shows the disease—298



different diseases or injuries having been treated—the number of cases of each disease, medical or surgical, with the sex, the result of the case and other facts of interest. Still another table enumerates 67 different operative procedures with the number of cases of each, and results, the total number of operations being 104. The total number of surgical dressings made was 11,745. Anesthetics were used 95 times, 24 of these being local, 41 chloroform and 30 ether. Six hundred and thirteen clinical histories were made and filed, 2,560 specimens of urine examined qualitatively, and 81 quantitatively. Two hundred and twenty-four pathologic specimens were preserved, 159 sections made and stained, 326 mounts made. One hundred and sixty-five bacteriologic cultures were made, and 230 bacteriologic mounts. Besides these there were 137 specimens of sputa examined and 410 mounts made. Four hundred and twenty-three specimens of urinary sediment were examined microscopically, 28 specimens of pus, 61 of blood, 7 of feces, and 11 of other substances. The tables also show the number of prescriptions filled, which was in toto 18,198; of these 4,519 were new, and 13,679 refilled. The pharmaceutic preparations manufactured are also given in exact figures.

**The Future of Hypogastric Cystotomy**, its operative manual, and subsequent course. This was the title of a paper which Dr. Miguel Otero of San Luis Potosi, read at the meeting of the Pan American Medical Congress in Mexico.

With scientific conviction from personal observation, he augured that perineal cystotomy will disappear from daily surgery, and asked to be heard before being condemned.

Entering on *materia* he hinted at the motives which have existed to circumscribe the field of hypogastric cystotomy and adds: It does not entail the operative and consecutive dangers resulting from perineal operations, such as hemorrhage, blind laceration of the prostate, sterility, unfinished operations, fistulas which are hard to avoid, etc.

From regional anatomy one deduces, logically, precisely the contrary to what is affirmed against that which he defends, if it is known how to utilize the resources invented against urinary infiltration and peritonitis.

With this object in view, he explained the details of his operative procedure, among which the principal are the smallness of the incision, with the third part upon the pubis, the provisional fixing of the bladder, the recommendation to employ the urethral sound promptly to find the bladder, and in a sound bladder the perfect suture of the whole wound, syphoning through the urethra for a few days, as a remnant (he said) of antiquated apprehensions. And when the cavity is explored satisfactorily by the finger and eye, when calculi have thus been so easily extracted, from stones of only 50

centigrammes up to the others which occupied the whole bladder (leaving only one channel) and passing through intermediary sizes; when, from a large fold of dilated bladder the foreign body diagnosed is extracted and one or more found, imprisoned or not, which would never have been discovered if the perineal course had been followed, then must be admitted the incontrovertible superiority of suprapubic cystotomy over the bi-lateral and coetaneous, except in the case for women for calculi weighing less than 125 grms. and in the case of men if the stone has penetrated into the prostatic urethra.—Therefore: *the hypogastric section ought to be recommended to members of the profession who are not specialists, for all calculi; and nowadays even the kings of surgery should prefer it when Bigelow's operation is not feasible.*

**Antipyrin as a Hemostatic** has been recommended by Dr. Roswell Park and is certainly effective. Ferripyrrine is a combination of antipyrin 64 per cent. and iron chloride 36 per cent., and the advantage claimed for it, as given in the *American Therapist*, is a prompt checking of capillary hemorrhage without an undesirable coagulum. To one who has used antipyrin alone for that purpose, it appears questionable whether the combination will prove an advantage. Ferripyrrin is also said to have been given internally in anemia and chlorosis with good results.

**Doctor's Rights.** That was an interesting surgical case lately reported from London, says *Harper's Weekly*, where a British surgeon was sued by a patient for exceeding his commission. "The patient, a young woman, agreed to a certain definite operation, the limits of which she prescribed. After the operation had begun, the surgeon concluded that the case called for a further excision than the patient had consented to, and performed it, the patient's previous objections to the contrary notwithstanding. She sued him, but lost her case—partly, it would seem, because she did not make it quite clear that she had absolutely forbidden the more extended operation. Besides, she was a hospital nurse, and one of the things that are most diligently trained into hospital nurses is that the doctor knows best, and his opinion always governs. Possibly the court felt that to allow a trained nurse to establish her rights in her own members as against a surgeon would establish a dangerous precedent.

In this case, as well as in the famous Kitson-Playfair case, doctors of high standing were called upon to testify as to professional custom in such matters, and some of the most eminent surgeons in England averred that they would not undertake a surgical case in which their professional free-will was restricted. Once the patient lies unconscious in the hands of one of these gentlemen, everything that ought to

come away comes. They are great fellows, and very good at their business, and almost always know perfectly what they are about, and have sound reasons for everything they do, but still the uncertainty of how much of one will be left is an agitating consideration for a patient about to undergo an operation. To agree to the removal of the vermiform appendix, and come to find one's whole stomach in a glass jar, would be disconcerting to the nerves, and might almost make one doubt the effectuality of *Magna Charta* and *habeas corpus* and the Bill of Rights.

British doctors are haughty men. It seems to be neck or nothing with them in their professional dealings. It ought to be a matter of congratulation with us that our surgeons, being of democratic breeding, and not solicitous about class privileges, place their admirable skill at our dispositions without depriving us of all the option as to how much of ourselves we shall spare. To be sure, as a general thing, we trust ourselves implicitly in their hands, but if we should make reservation, we would confidently expect it to be respected, even though, from the surgeon's point of view, it would complicate the case."

**Infant Feeding: The Anti-dyscrasic Action of Cow's Milk.**

In paper with the above title prepared by Dr. M. F. Cupp, of Edinburg, Ind., for the St. Paul meeting of the Mississippi Valley Medical Association, the writer held that, while normal woman should nurse her infant, yet owing to unfavorable habits and surroundings, injurious social and educational systems, her value is greatly lessened. Even when apparently only anemic it is safer to resort to artificial feeding. The dependence of normal human milk on integrity of maternal tissues is important. No discrimination against wet-nurse should be made. The same rules of selection should apply to both. Long continued drains, as from lactation, menorrhagia, chronic ulceration, chronic diarrhea, diabetes, neurasthenia, excessive venery, all characterized by depraved blood-states and poor nutrition, act prejudicially on mother's milk. It is then too rich in albuminoids, or too poor in fats. It was claimed that all are affected to a varying extent with deterioration of the body. Abnormal sensitiveness of nervous centers increased susceptibility, and physical involution was alleged to have resulted from the forcing processes of an artificial age. In the writer's opinion, we are approaching a climax, to be followed by inevitable descent. These conditions suggest a question: How shall the hyper-civilized mother nourish her infant, which may be only puny? Selection may redeem future generations, or may debase the standard of other families. We must practise artificial feeding until we learn to live rationally. As an invigorating food, cow's milk ranks first. Compare infants with older children of same parents when no compe-

tent milk analysis is available, deciding each case on its merits, and guarding against the common error of over-feeding. With the young of animals all is according to Nature's own plan, and we must adopt that exclusively, striving to imitate her simplicity? Increased intellectual force would follow as a result along with augmenting physical powers, instruction of observing and perceptive faculties being oral. The writer predicted universal degeneration with the present ruinous system within 500 years. Cows well stabled and fed are not subject to unfavorable influences as are women. The graduated flask of capacity for a single feeding was advocated. Sterilize, dilute with simple water or limewater, adding milk, sugar and cream. Striking differences of temperament, with greater vigor, have been noted; instances in the same family of a vivacious child reared on cow's milk, while the elder children were dull and cachectic. For past five years he has used Meigs' mixture, and has had no deaths chargeable to artificial feeding. Children of scrofulous, tuberculous, and syphilitic parents have fed upon it with excellent results, which have been brilliant when the parents were simply delicate or feeble.

**The Medical Inspection of the Schools** is a subject that it is just now pertinent to discuss, says the *Buffalo Medical Journal*. The health department of New York, becoming convinced that one of the greatest sources of transmission of infectious and contagious diseases among children is through contact with each other in school, has asked for an appropriation in order to appoint medical inspectors for all the schools in the city, public, private and parochial.

We have been of the opinion for a long time that some method should be adopted to restrict or prevent certain practices that are permitted in the schools. Drinking from the same cup is such an abominable custom we are surprised that any intelligent educator should permit it under his jurisdiction. In like manner, too, towels should be used but once, and various other limitations placed on the liability to spread contagion. One of the most important offices that can be performed is a regular system authorizing official inspection of public schools under the direction of the health department, and which should be made so rigid and so frequent as to impress its importance, not only upon the principals and the teachers, but upon the pupils themselves. We are aware of the difficulties that present themselves in establishing such a radical improvement, but the reasons are so potent, and are such as to appeal so strongly to every intelligent person, that we hope it will not be long before the Buffalo health department will institute such a reform. The plan has been found to work well in Boston, and we see no good reason why it should not be tried in New York and Buffalo." We would like to see such a reform made in Cleveland.

**The Contagious Fever Van** is the name of a new ambulance introduced by the direction of Dr. Erasmus Garrott, of the contagious disease department of the Health department of Chicago. It is built of solid wood, has no upholstery, has basket stretchers, Japanese warmers and pneumatic tires. It was presented by the Columbian Ambulance Co.—*North American Medical Review*.

**Intestinal Sepsis and Hodgkins Disease.** The *Universal Medical Journal* for December, 1896, quotes from Sir William Broadbent's inaugural address before the Midland Medical Society, as given in the *Birmingham Medical Review*. Among a variety of questions touched upon, of exceeding interest and importance, was the above topic. On more than one occasion he had given instances of effects traceable to intestinal sepsis. Other microbes besides the bacterium coli communis are present in the intestinal canal and apparently at times find conditions which favor their activity and they may then produce ptomaines which are absorbed into the blood and give rise to serious symptoms, headache, heaviness, torpor, and, in extreme instances, almost coma with subnormal temperature, which are cleared off at once by two or three doses of calomel; or in other cases it is a persistent subfebrile condition attended with headache and depression which is so caused. Some of the abnormal and severe symptoms at times met with in the course of typhoid fever are, in his opinion, due to intestinal sepsis, and not directly to the typhoid bacillus or its products. Other microorganisms find a suitable culture-medium in the fluids exuding from the inflamed Peyer patches and the intestinal mucous membrane, and the ptomaines which they generate may be deadly poisons.

The following case appeared to be a new illustration of what may be done by bad gastro-intestinal chemistry: A very acute case of Hodgkin's disease came under his observation, two years since, in a gentleman aged about 52 or 53.

The glands of the neck, axillae and groins rapidly attained a very considerable size, but these were eclipsed by the enormous development of the glands within the abdominal cavity. One mass, in particular, could not be disengaged from the liver in the neighborhood of the portal fissure and was carried with it in its movements. The patient was sent to Folkestone, where he was watched by Dr. Eastes. Arsenic was given in gradually increasing doses, and the advance of the disease appeared to be checked, but the strength steadily diminished. The patient was a chronic dyspeptic, and a serious aggravation of his weakness and suffering was obviously traceable to dilatation of the stomach with its attendant anorexia, flatulence and acidity, and frequent copious vomiting of offensive matters. With some difficulty he was persuaded to allow the stomach to be washed

out, upon which not only were the symptoms directly due to the dilatation relieved, but to the astonishment of the attending physician the glands began to melt away with great rapidity. The mass projecting from under the liver detached itself from this organ, and its component glands fell apart; other masses in different parts of the abdomen (presumably mesenteric) resolved themselves into groups of glands not easily distinguished, and a little later in point of time a steady diminution of the cervical, axillary, and inguinal glands took place. With this the patient gained strength and color, and they were looking forward to a complete recovery, when the patient's mother-in-law, who was on a visit in the house, took influenza and died, and he also was struck down by this disease.

Without generalizing too far or too confidently from a single case, the conclusion is at least suggested that the glandular enlargement here was due, not to infection by cellular elements carried from one to another, but to irritation by some toxic substance generated in the dilated stomach which excited active proliferation in the cells of the glands, beginning with those in immediate relation with the surfaces which the irritant was absorbed.

Should confirmatory experience be obtained new light will be thrown on the causation of, at any rate, one form of Hodgkin's disease. It will be worth while making a careful examination of all cases from this point of view.

A similar case had come under his observation since. All the glands were greatly enlarged and masses could be felt in the abdomen. There had been severe dyspeptic symptoms before the glands were affected, and the patient himself attributed his illness to tinned meat and bad food generally in South Africa. He refused, however, to have the stomach washed out and was in other respects unmanageable, and the disease proved rapidly fatal.

In all these instances of disorder due to the formation of some ptomain or toxin in the gastro-intestinal canal the process is chemical, but there are numerous other effects of dilatation or distention of the stomach traceable to mechanical pressure or to reflex disturbance of the nervous system. One is vertigo, which may be very severe. There is no translation or revolution of surrounding objects, and the giddiness does not come with the suddenness of auditory vertigo, but the patient will stagger as if he were on the deck of a steamer and may be unable to cross the room without clinging to articles of furniture, or may have to hold on to the bedstead, on rising in the morning. One feature it shares with Meniere's disease, and that is that it may be provoked by various movements—by looking up, by stooping and again on rising, by changing from the horizontal to the vertical position and *vice versa*, and by turning in bed,

especially toward the left side. An interesting point about this *vertigo a stomacho læso* is that it may be instantly relieved by the escape by eructation of a few cubic inches of gas. Apparently, therefore, it is a mechanical effect of overdistention, and yet this can scarcely be from pressure on the heart, since the pulse may be perfectly steady and good when the giddiness is at it worst, and the face of normal color and expression. We must assume, therefore, that the probable cause of the vertigo is reflex disturbance of the cerebral circulation excited by the distention.

**Why Most Physicians Die Poor.** It is strange, but nevertheless true, says the *Charlotte Medical Journal*, that most of the medical profession fail to accumulate anything approaching a fortune, and, sad to say, often die with liabilities far in excess of their assets.

No man is less remunerated for the long hours of toil and worry than is the family doctor. He is, as a rule, a poor business man, poorer still as a financier and collector. So generous is his nature that he is constantly forgetting to provide for himself and family. Being a poor financier and loose in business affairs, he is continually being used as a target for the shark to aim at.

A scheme is presented to him, he glances over the plans with his professional eye and immediately falls a victim to the statement. "You will get big dividends." He never gives a thought as to what becomes of his principal, and, as a rule, leaves his elephant much worse for the encounter.

He is careless about his bookkeeping, and his bills are sent out with appalling irregularity.

What business man would think of buying books, instruments, and drugs without in each purchase getting lowest possible price, and then deducting his discount?

The physician buys too readily, and that for which he has no use.

His social standing requires him to give liberally to the charities, and the constant drain on his purse for the entertainment of his many friends plays no little part in eating up his savings. The doctor is a poor insurer. A physician with a yearly income of four thousand dollars should carry at least twenty-five thousand dollars in ordinary life insurance at a cost of five hundred dollars a year, or should, if possible, pay twice this sum for a like amount of insurance payable in twenty years. Allow old line insurance companies to play the shark game with you, for then, at least, those dependent upon you will be safe in case you are suddenly taken away from them.

Insist on the laity knowing that the physician does not roll in wealth, and that he requires prompt payment of accounts just as does the merchant. Let it be posted upon your door: "The laborer is worthy of his hire."

**Fecundity After "Ovariectomies."** Gordon in March, 1894, "removed" both ovaries and tubes from a woman, age 33; for a few months after the operation she menstruated regularly till June, 1895, when she became pregnant and was delivered of a healthy child in March, 1896. October 20, 1892, Stansbury Sutton "removed" two large ovarian cysts from a woman, age 28. The ligatures lay close to the uterine cornua. June 10, 1894, the patient gave birth to a male child. February 25th, 1896, she was once more delivered. No satisfactory explanation of these occurrences was given in their discussion before the American Gynecological Society. In some sections of the United States the explanation would be "mal practice."—*North American Medical Review*.

**The Use of Surnames only in Citing Authorities in Medical Literature.** In a letter to the Editor of the *Medical News*, Dr. James Tyson of Philadelphia writes: Dear Sir:—Having engaged lately in literary work involving considerable consultation of papers and verifying of references; I have realized, as anyone must under the circumstances, the extra labor necessitated by a practice, which has been more or less general with authors, of mentioning only the surnames of writers and investigators referred to. Anyone who has had experience cannot fail to have been struck with the large number of persons of the same surname who are contributors to medical literature, so that a reference to Dr. Sydenham's or Dr. Jones' views, or Dr. Rankin's papers, gives a very imperfect idea of the individuality of the author.

Take, for example, the name Hoffman. The student will find, in the Surgeon-General's catalogue, this surname more than one hundred times, and, of these many Hoffmans, quite a number are authors of voluminous and important papers; so that to be told that Hoffman believes thus and so is of little assistance to the reader who desires to look up his views and papers. Again, to take a name to which modern medical literature often refers—Laveran. At least two Laverans, both army surgeons, have written papers of importance. The Laveran whose name is so identified with the malaria plasmodium is A. Laveran, while Louis Laveran is a very different person; yet writers only quote Laveran. It is needless to multiply instances; they will occur to anyone.

My object in asking publicity for this letter is to beg writers to adopt the practice of giving the full name of the authority quoted.

This, of course, involves a little trouble at first to hunt up the Christian name, but, as years roll on and we are thus explicit in indicating authorities quoted, it will become easier and easier, while the amount of labor saved to those looking up references will be immeasurable. Especially important is it that the editors of the various hand-books and annuals,



which are now filling such a useful niche in medical literature, should adopt the practice of using the full name, for it is from suggestions in such books that writers often want to look up references.

**From Hiawatha.**—Borrowed from "*The Workman*" (secured by mechanic's lien, we couldn't afford at present to buy it outright), its feet half soled, as even they seemed to be somewhat on their uppers, and steam-pressed to fit  
THE GAZETTE.—

"Should you ask us why this dunning,  
Why these sad complaints and murmurs,  
Murmurs loud about delinquents  
That each month have read this journal,  
Read what they have never paid for,  
Read with pleasure and with profit,  
Read of doctors and their prospects,  
Read of news both home and foreign,  
Read the essays and the poems,  
Full of wisdom and instruction,  
Should you ask us why this dunning?  
We should answer, we should tell you:

"From the printer, from the mailer,  
From the kind old paper maker,  
From the landlord, from the carrier,  
From the man who taxes letters  
With a stamp from Uncle Samuel—  
'Uncle Sam' the rowdies call him;  
From them all there comes a message,  
Message kind and firmly spoken,  
'Please to pay us what you owe us.'

"Sad it is to hear such message,  
When our funds are all exhausted,  
When the last bank note has left us,  
When the gold coin all has vanished,  
Gone to pay the paper-maker,  
Gone to pay the toiling printer,  
Gone to pay the landlord's tribute,  
Gone to pay the nimble carrier;  
Gone to pay the faithful mailer,  
Gone to pay our Uncle Samuel—  
'Uncle Sam' the rowdies call him.

"Would you lift a burden from us?  
Would you drive a spectre from you?  
Would you taste a pleasant slumber?  
Would you have a quiet conscience?  
Would you read a paper paid for?  
Send us money—send us money—  
Send us money—send us money—  
Send the money that you owe us.

—Unknown Author.

## Selections.

### TREATMENT OF INFLAMMATORY DISEASES OF THE STOMACH.\*

For several years I have had under my care quite a number of patients afflicted with acute or chronic inflammatory diseases of the gastro-intestinal tract. The records of my clinic (143 of such cases) show that stomach diseases are to my knowledge the most distressing ailments which may afflict human beings. When the stomach is out of order life is a burden and everything seems to go wrong.

The majority of general practitioners, as far as I could learn, still adhere to the old-fashioned treatment of gastric disorders, and I confess that during the first years of my practicing medicine I have, like others, used remedies which every one of us have prescribed, in order to relieve their patients, and to my great disappointment I was never fortunate enough to cure chronic gastritis by treating the symptoms, although I have occasionally relieved my patients, but only when the disease was not chronic.

You have—as well as myself—prescribed menthol, cocaine, opium, ice, and other remedies to relieve nausea and to stop vomiting; you have cleansed the stomach by lavage and purgatives, and subsequently irrigated the lining membrane of that much abused viscus with modern antiseptics; you have called to assistance pepsin and innumerable drugs, but have you cured your patient? No. You have merely lost track of him. The patient did not call again, because the treatment did not do him any good, and frequently because it aggravated his trouble.

So the world goes on and the poor creature afflicted with chronic gastritis goes on suffering more and more. Why did you fail to cure catarrh of the stomach? It is because you merely attempted to relieve the symptoms instead of prescribing remedies to subdue the existing pathological condition, and the inflammation of the lining membrane of the stomach, which condition prevents the digesting process from being normal.

In order to subdue this abnormal inflammatory condition of the wall of the stomach antiseptics are indicated, but you know as well as I do that powerful antiseptics have the same destructive action upon both vegetable cells (germs) and animal cells. Consequently, they will in all cases aggravate the disease.

I am much opposed to the use of strong drugs in my practice on account of sad results which I have witnessed, and I put more stress on harmless, although most powerful antiseptics, than I ever did since I successfully treated hopeless cases of cholera infantum with hydrozone (30 vols.  $H_2O_2$ , aqueous solution.)

\*Read before the Mississippi Valley Medical Association at St. Paul, Minn., September 16, 1896.

### *Selections.*

Therefore my method of treatment of all inflammatory diseases of the stomach may be summed up as follows: First destroy the morbid element, which is present in the stomach, so as to thoroughly cleanse the mucous membrane; second, heal the diseased surface after it has been made aseptic.

As a cleansing agent which acts both mechanically and chemically, I know of nothing as powerful as hydrozone, Therefore I prescribe one tumblerful of lukewarm water containing two per cent. of hydrozone, half an hour or so before meals.

The nascent oxygen which is set free in the stomach by its oxidizing action destroys the morbid element and cleanses the mucous membrane more thoroughly than anything I know of. This being done, the patient should wait for at least fifteen minutes before taking his meal.

As a healing agent I prescribe one to two teaspoonfuls of glycozone diluted in water to be taken immediately after meals.

The results which I obtained in submitting my patients to the above rational treatment are so gratifying that I do not hesitate to say here that the great majority of cases of stomach disorders may be cured or at least much relieved in a very short time by this treatment, which is already indorsed and used by some of our most skillful practitioners.

On this occasion I wish to state that I cured a well-defined case of gastric ulcer, at least all the characteristic symptoms, like circumscribed pain, indigestion, and hematemesis have disappeared for fifteen months under the above treatment, save lavage, which when practiced once caused an alarming hemorrhage. I wrote to the patient, who lives in St. Louis, and he informs me that neither of his symptoms have appeared since I left that city, which was about fifteen months ago. The patient has been instructed to resume the treatment as even the mildest symptoms reappear, but he wrote me that he needed to use no medicine whatever.

While my experience with gastric ulcer is but limited, I could suggest no better treatment; first, because all usual remedies do not influence the ulcer itself, and second, because I have seen healed the most stubborn cases of ulceration of the cervix and chronic ulcers of the leg under the same method of treatment.

During the discussion which followed the reading of this paper, Dr. Larrabee, of Louisville, had this to say: Almost any condition found in the stomach may come from the causes mentioned by those who have spoken, but I am convinced that the portal circulation is a most important factor in these cases; and one, too, which is often overlooked. Exercise is of paramount importance, in all cases of chronic gastritis. In arresting *putrefactive changes in the stomach glycozone has proven in my hands most excellent,*

### *Selections.*

but do not neglect to stimulate the liver when indicated.—  
Dr. Gustavus A. Blech, Detroit, in *Mathew's Quarterly*,  
October, 1896.

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#### MATERIA MEDICA AT THE PYRAMIDS.

"The Saturday Review" says that when he was in Egypt, Mark Twain hired two Arab guides to take him to the Pyramids. He was familiar enough with Arabic, he thought, to understand, and be understood with perfect ease. To his consternation he found that he could not comprehend a word that either of the guides uttered. At the Pyramids he met a friend, to whom he made known his dilemma. It was very mysterious, Twain thought. "Why, the explanation is simple enough," said the friend. "Please enlighten me, then," said Twain. "Why, you should have hired younger men. These old fellows have lost their teeth, and, of course, they don't speak Arabic. They speak gum-Arabic."

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#### BICYCLE SADDLES.

*Dr. A. E. Meyer*, in an address to the Society for Instruction in First Aid to the Injured, of New York, on January 29th, said: "Many persons object, and with reason, to bicycle riding for women, for many women have been injured by it without doubt. There would be no trouble if a proper saddle were used. The difficulty lies in the dissimilarity of the male and the female anatomy. The two tuberosities in the male are close together and so rest upon and are supported by the saddle; in the female they are further apart, and the ordinary saddle is not a support, but a strain upon the tissues that lie between." If the doctor had gone further and said that the same objections hold in the case of men, he would be supported in such statement by nearly all physicians who ride. The Christy saddle, however, meets these objections in both cases. It possesses the three essentials of proper support, absence of the objectionable pressure in the median line, and retaining the horn, whose position between the thighs aids materially in controlling the machine.

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#### IMPERIAL GRANUM.

Syracuse, N. Y., Dec. 11th, 1896. John Carle & Sons, New York City. Sirs:—During the middle of November I had an attack of pneumonia with very great difficulty in digesting my food; on trial of the various foods of which I had an abundance of samples, I found none so palatable and easily digested as IMPERIAL GRANUM.

Truly yours,

\_\_\_\_\_  
M. D.

## Selections.

### CONSTIPATION NOT HARMFUL.

An editorial in a recent number of *Practical Medicine* discusses the subject as follows: "One of the most remarkable articles which we have read in some time recently appeared in one of our exchanges. We would think but little of such an article did it not come from one of the faculty of the Post-Graduate College. The writer declares that constipation, even for a long period, brings no bad results whatever. He says that it is "an experience which physicians make every day," that patients are "kept in bed for weeks without any movement of the bowels, and yet there are no bad effects."

In treating a case of chronic constipation, the author says: "It is best to tell the patient not to take any drugs and not to get alarmed if he has no movement for about a week." While such advice may be in strict accord with some new discovery in the bacteriological laboratory, yet it is precisely contrary to the experience of almost every physician who has had anything to do with practical observations at the bedside. Instead of modern methods teaching us something new in this line, we believe that they rather confirm the teaching of the old Scotch proverb, that you will be all right if you trust in God and keep the bowels open.

At the last meeting of the Mississippi Valley Medical Association, Dr. I. N. Love of St. Louis, expressed himself exactly according to our belief when he said: "There can be no doubt that the majority of diseases which afflict human beings, male or female, are largely dependent on constipation." Just in this connection might properly be added the best remedy for this condition. We refer to Syrup of Figs as prepared by the California Fig Syrup Co. Excellent, Economical, Effectual.

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### THE MANAGEMENT OF CHRONIC BRONCHITIS.

Chronic bronchitis is an affection easily controlled when the patient is properly treated. No greater mistake can be made than to treat the disease "*per se*." The affection is one which engenders great vital depression and tissue waste, and the patient must be given besides remedies which are intended for cough some potent constructive and tonic. To this end the employment of the Compound Syrup of the Hypophosphites (Fellows') in doses of a teaspoonful four times daily must be looked upon as the most necessary and reliable agent. If the expectoration is abundant, an emulsion of bals. copaiba should be given regularly. If on the other hand it is scant the best results will be obtained from the employment of iodide of potassium. But the Fellows' Hypophosphites must be given regularly in order to counteract waste and to keep up the strength of the patient. The patient's chest must be well protected and he must not expose himself to the vicissitudes of the weather.



### Original Articles.

#### CLEVELAND IN THE CENSUS REPORTS.\*

BY H. E. HANDERSON, M. D.,

Professor of State Medicine and Hygiene, Cleveland College of Physicians and Surgeons.

Demography, the study of populations, is not, perhaps, a science adapted to awaken much enthusiasm in a medical audience. Few works probably strike such dismay into the soul of a physician as is communicated by the sesquipedalian columns of a census report. Profound and prolix discussions of questions in which he takes no interest, explanatory titles which require the use of an unabridged dictionary for their own elucidation, and interminable columns of pitiless figures combine to produce in his mind a feeling of disgust and imbecility, which terminates in the mental resolution to eschew such literature utterly and forever.

And yet did you ever think of the romances, the tragedies and comedies of real life concealed beneath these monotonous figures? Few, perhaps, know the fact that, as late as the census of 1840, there were in the State of Ohio three slaves. What might not the skill of the late Harriet Beecher Stowe elaborate from these solitary units of the census? There are to-day (or at least there were in 1890) five Indians in this city—whether common “herb-doctors” or specialists in venereal diseases deponent saith not. But fancy the thrilling situations, the grandiloquent orations, the romantic possibilities supplied to the

\* Read before the Cuyahoga County Medical Society, January 7, 1897.

genius of a modern Cooper by these anachronistic Chin-gach-gooks and Wah-ta-Wahs of the close of the nineteenth century! For some reason the Chinese character does not lend itself readily to the speculations of romance. Yet it is not impossible that a new De Quincey might galvanize into a living interest the odorous laundries and reeking opium-joints of our 35 Chinese residents.

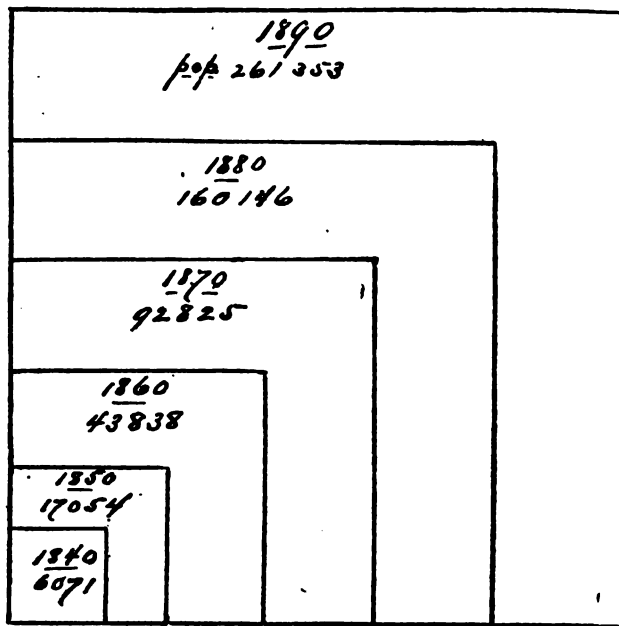
Quite recently no little time and ingenuity have been expended in the effort to penetrate with the eye the soft tissues of the human body, and to view *in situ* the somewhat ghastly and unattractive bony substratum beneath. To-night my effort shall be to reverse, in some measure, this process of Roentgen, and, so far as I am able, to bring to view between the dry and monotonous columns of the census-sheet, the living, breathing, struggling masses who compose the citizens of our civic community. Cleveland, in this our centennial year, has been "done" historically, socially, and commercially *usque ad nauseam*. It remains only to describe our city demographically to complete the picture.

In the year of our Lord 1890, the city of Cleveland reached the municipal age of 54 years, having grown in this plump half-century from a puny population of less than 6,000 (about one-half that of one of our larger wards of the present day) to the tenth city in our land. Passing in its rapid course no less than thirty-five competitors who stood before it in 1840, it has been itself beaten in the race by but two cities, San Francisco and phenomenal Chicago, of which the former, at the date mentioned, was little more than a moribund mission-station for some Franciscan friars, and the latter a swampy, newly organized city of less than 4,500 inhabitants. Our city charter dates from 1836, and by the United States census of 1840 Cleveland contained a population of 6,071 inhabitants.

The bare statement that in 1890 the population of Cleveland was 261,353 awakens little attention. If we add that of this number 132,517 were males and 128,836 females, a certain feeble human interest begins to manifest itself. But if now we change the statement so as to read that in each 1,000 of our population, 507 are males and 493 are females, the proposition becomes not only more intelligible, but actually arouses a feeling akin to

personal sympathy. So too the fact that in 1890, no less than 2,989 of our citizens were of African descent is accepted as a statistical statement of no considerable importance. But if we say that in each 1,000 of our population 11 are "American citizens of African descent," each colored man or woman seems thenceforth endowed with a certain individuality, and acquires a certain claim to our sympathy and consideration.

As a matter of history the ratio of the sexes in our city population has fluctuated considerably during the



POPULATION OF CLEVELAND BY DECADES.  
(Areas proportional to population.)

half century covered by its census reports. In 1840, it was 513 males to 487 females; in 1850, 505 males to 495 females. Singularly enough in 1860 these ratios were reversed and our population was composed, in each thousand, of only 489 males to 511 females. What was the occasion of this remarkable reversal of the ratio of the sexes at this period I am unable to say. Possibly the disastrous financial panic of 1857 and a practical suspension of manufacturing and other occupations creating a demand for male labor, which accordingly emigrated temporarily to other cities, may explain in some degree the anomaly.



At all events, the disturbance was both local and temporary, for in 1870 the ratio of the sexes was restored to the more normal figures of 504 males to 496 females. Ten years later, in 1880, these ratios were almost exactly equalized, the figures standing 500.6 males to 499.4 females. Since that period the ratios have again diverged, and in 1890, as already mentioned, our population consisted of 507 males to 493 females. It may not be superfluous to remark that the ratio of the sexes in this country is precisely opposite to that prevailing among the nations of Europe, where, as a rule, there is a predominance of females. This difference may doubtless be explained, at least partially, by the results of emigration and immigration.

The colored population of our city has fluctuated between the limits of 10 per thousand in 1840 to 18 per thousand in 1860, the maximum of the latter year being ascribable, perhaps, to the increased activity of the so-called "underground railroad" just preceding our civil war. Cleveland, as is well known, was an important station of this clandestine road to freedom.

Of more interest to the physician is the "age-scale" of our population, that is, the proportion of our citizens found between certain limits of age. The rate of mortality of a community is largely influenced, of course, by the proportion to the total population of the very young and the very old. Not less than one-fourth of our children die before attaining the age of five years, and of one thousand individuals between the ages of 60 and 80, not far from 50 will die every year. The age-scale of a community is, therefore, always to be considered in comparing the mortality rates of different populations.

Of one thousand persons living in England and Wales, 136 will be found to be under five years of age, 460 under the age of 21 and 540 above the age of 21. It will be seen, therefore, that nearly one-half the entire population is found in what may be called the unproductive or dependent period of life, below the age of 21. When we compare with these figures the age-scale of the city of Cleveland in 1890 the variations are somewhat startling. At the period indicated, in each 1,000 of our population only 110 were under the age of five years, 442

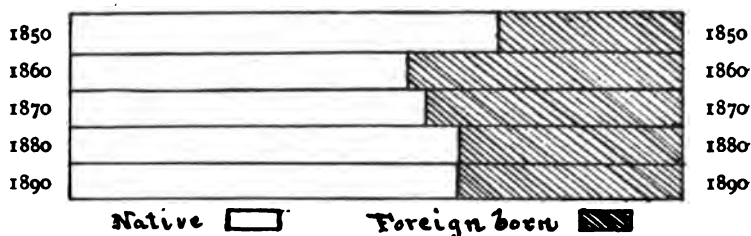
were under the age of 21 and, of course 558 were adults. Verily the city would seem to be growing old in more senses than one! A comparison of these figures with the age-scales of our own city in 1840 and 1850 is not less suggestive.

	1840.	1850.	1890.
Under 5 years, . . . . .	153	149	110
Under 21 years, . . . . .	471	465	442
Adults, . . . . .	529	535	558

The rapid decline in the proportion of our children and youth to the entire population of the city is thus well illustrated. Two corrections, however, to these apparent ratios require to be made. In the first place, the proportion of children to adults in the city is *always* less than in the country. It is to young adults that cities present the strongest attractions, and accordingly it is in our cities that we find this class existing in the greatest proportions. The correction to be made for this element of disturbance is easily found in the ratio of children and youth to adults throughout the entire country. The age-scale of the United States in 1890 furnishes us the proportion, in each one thousand of the population, of 113 persons under five, 468 under 21 and 532 over 21 years of age. Another correction for the influence of immigration, which, of course, introduces into the country a large majority of young adults, requires also to be made, but its amount must be more or less conjectural. From a comparison of the birth and death rates of the city during the past year I am led to the conclusion that the normal proportion of children under five years of age to the total population, when due corrections are made for the disturbing factors enumerated, will not vary much from 140—a considerable decline, indeed, from the figures of 1840 and 1850, but not sufficient to warrant the pessimistic conclusions sometimes drawn from a hasty glance at the uncorrected figures. The general disappearance of families of eight to twelve children (which were not at all uncommon in my youthful days) indicates, indeed, a decline of our birth-rate in this country, but the evil has not yet assumed very startling magnitude, if we may rely upon the somewhat fragmentary data alone attainable for the determination of our increment by births.

The influence of nationality upon the character of populations is well recognized, and our recognition of this influence has crystallized into the colloquial expressions "canny Scotch," "witty Irish," "haughty Spaniards," "crafty Italians," "English common-sense," etc. Even the outlines of a national pathology may be recognized in the predilection of certain diseases for certain peoples, *e. g.*, of gout and rickets for the English, of hemophilia for males of the Teutonic stock, of leprosy for the Scandinavians and Chinese, etc. It will not, therefore, be entirely uninteresting to physicians to learn what proportion of our city population is of foreign origin, and what are the predominant nationalities represented among our alien inhabitants.

I presume most of us have supposed that, for the last fifty years, the proportion of our foreign-born population to the total population of the city has been steadily increasing. I know such was my idea when I began the present investigation. An inspection of the accompanying chart of nativities will show, however, that this idea was erroneous.



RELATIVE NATIVITY.

Prior to 1830, European immigration to places as far west as Cleveland was only exceptional. Even as late as 1850 persons of foreign birth formed only 30 per cent of our city population. Ten years later, in 1860, this percentage had increased to 45, since which period it has gradually decreased to 42 in 1870, 37 in 1880 and 37.2 in 1890. Putting these figures into the concrete form in order to render them more intelligible, we may say that in each 1,000 of our city population in 1890, 628 were born in this country and 372 were of foreign birth. But of the 628 born in this country, 236 only were born of native parents and 392 of parents one or both of whom were

born abroad. Or, reducing the expression to its lowest terms, of each 100 of our city population in 1890, 24 were native Americans for two generations, 39 were natives by birth, but of foreign parents, and 37 were themselves of foreign birth. Of course, in the last analysis the five native Indians of our city are our only Simon Pure native Americans; but I doubt not it will surprise you, as it certainly did me, to find that less than 24 per cent of our population can trace their American ancestry beyond their own parents.

The nationality of our alien population is also a matter of some considerable interest and importance. Germany and Great Britain (including Ireland) have always furnished by far the largest contingent, but within the last twenty years other nationalities have risen into notice and bid fair to acquire considerable significance. Thus Bohemia, which in 1870 supplied only 2 per cent of our foreign population, in 1890 furnished 10.5 per cent, and within the last few years (too recently to appear in the census of 1890) Italy has furnished a not inconsiderable contingent to this class of our citizens. The relative changes in the nationalities of our foreign population will be readily appreciated by a glance at the following table:

	1860.	1870.	1880.	1890.
Germany, . . . . .	46.7	41	39	41
Great Britain, . . . . .	45	40	37	28.7
British America, . . . . .	4	7	7.3	5.3
Austria, . . . . .		5.5		2.7
Bohemia, . . . . .		2	9	10.5
Switzerland, . . . . .		1.8	1.2	1
All other countries, . . . . .	4.3	2.7	6.2	10.8

The following diagram gives a graphic representation of the same facts:



RELATIVE NATIONALITIES.

It will be particularly observed that while in 1860 Germany and Great Britain furnished 92 per cent of our foreign-born population, in 1890 the number furnished by these two countries had dwindled to 70 per cent, while the cosmopolitan character of our more recent immigrants is shown by the increase of the percentages under the heading "All other countries" from 4.3 in 1860 to nearly 11 per cent in 1890.

It is not the purpose of the present paper to emphasize the numerous and weighty deductions to be drawn from the figures thus offered to your notice. Many of them will occur to your minds spontaneously, and I prefer not to weary you further with the consideration of a subject which must be, at best, somewhat dry and uninteresting to the majority of my audience.

A general summary of the results obtained by this investigation may, however, be not unacceptable. If we divide the population of our city in 1890 into groups of one hundred individuals, we find that in each of these hundreds there will be 11 individuals under five years of age, 44 under 21 years and 56 adults. In each group will be found also 51 males and 49 females. Twenty-four persons will have been born of native parents, 39 will be native born, but of foreign parents, and 37 will themselves have been born abroad. Of this latter class 15 will be of German birth, 11 will be natives of Great Britain or Ireland and 4 natives of Bohemia, while the remaining 7 will represent almost as many different nationalities of Europe and Asia.

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## A NEW TECHNIQUE FOR CONTROLLING HEM- ORRHAGE IN CERTAIN OPERATIONS ON THE HEAD AND NECK, ILLU- STRATED BY A CASE.\*

GEORGE W. CRILE, M. D.,

Professor of Physiology and Principles of Surgery, Cleveland College of  
Physicians and Surgeons.

A colored patient, C. W., aged 48, was admitted to St. Alexis Hospital on account of a large osteo-sarcoma, so filling the mouth as to render its closing impossible.

\*Reported at the Cleveland Medical Society, March 12, 1897.

Breathing was so much interfered with as to threaten suffocation. Only liquid food could be swallowed, and that with difficulty. On account of its size, the extent of its attachment could not be determined. Its translucent surface displayed a rich supply of blood vessels, some of considerable size.

The growth was first noticed six years ago on the posterior part of the hard palate. Five years ago it was removed, followed by but temporary cessation of development. His health was not appreciably impaired, though there was considerable emaciation, resulting from the necessary liquid diet. Breathing, especially at night, was so heavy and labored as to threaten asphyxia, and the sound of his efforts could be heard at a considerable distance. Under cocain laryngo-tracheotomy was performed, for the double purpose of removing the danger of asphyxia and as a contributing part of the technique to be described.

This technique consists essentially of the following:

1. Preliminary tracheotomy, a week or ten days prior to the operation.
2. Anesthesia, accomplished through the tracheal tube.
3. Hypodermatic injection of atropin, 1-10 grain, a few minutes before the operation is begun.
4. Clamping both common carotid arteries.
5. Placing the patient in the Trendelenburg posture for operations within the mouth.
6. Removal of the tumor.
7. Securing the severed vessels.
8. Removal of the clamps.

The preliminary tracheotomy may be made under eucaïn or cocain, by dry dissection. In a week or ten days granulations are molded around the tube.

The tracheal tube is, at the time of operation, replaced by a breathing-anesthetizing apparatus, consisting of a tracheal canula of like dimensions and form to the one employed subsequent to the tracheotomy; to this tracheal tube is attached a strong rubber tubing of ample caliber and from 8 to 12 inches long. To its distal end is attached the right-angled tube of a Trendelenburg funnel, for inhaling the anesthetic.

The atropin is given for the purpose of preventing any inhibition of the heart's action by possible mechanical stimulation of the vagi, in clamping the carotids or in the subsequent operation.

Both common carotids were temporarily closed by means of clamps whose blades are long and protected by drawing over their free ends rubber tubing. The lower blade is slightly longer than the upper, and is turned up at its free end so as better to maintain the grasp upon the vessel. The spring end is rather long, so that in closing the blades by means of the thumb-screw they close more nearly parallel, securing thereby a more favorable grasp upon the vessel.

In operations in which blood may enter the broncho-pulmonary tract the Trendelenburg posture is ample protection against such danger. This posture also partially restores the lowered blood pressure of the brain resulting from the loss of the carotid pressure. The posture increases venous and capillary hemorrhage, which are however of relatively little consequence, excepting in case of the great veins. With these the principal danger lies usually in aspiration of air, which in this posture would be a very remote probability on account of the increased venous pressure.

On completion of the operation the clamps are slightly loosened by turning the thumb-screw. The larger vessels having the higher blood pressure will first show blood, and thereby be readily located. The amount of arterial blood lost is entirely under control of the operator. If the hemorrhage should prove uncontrollable without the clamps, the latter may be substituted by permanent ligatures.

It would seem advisable to return the patient from the Trendelenburg to the horizontal posture before removing the clamps, as in the inclined position the normal blood pressure of the brain is increased by the mechanical factor, and releasing the clamps would send up the pressure above the normal, which in some subjects might jeopardize the walls of the vessels, and certainly increase opportunities for hemorrhage. The release of the clamps should be gradual, by slowly loosening the thumb-screws.

There are, in all probability, no vaso-motor nerves

supplied to the vessels of the brain. This is contrary to the general opinion, but the recent researches of Bayliss and Starling on this question leave little doubt. The circulation then is largely mechanical, depending upon the general blood pressure, and being mechanical and so depending, the brain should be less subject to over distension on the employment of such technique than almost any other organ of the body whose blood supply, in a measure, is dependent upon a vaso-motor mechanism.

In the case herein reported the jaws were held apart by means of small blocks of wood inserted between the molars. The outline of the tumor was delineated by an incision through the mucous membrane. The hard palate along this incision was severed, the vomer likewise, and the entire mass turned out. After the necessary revision of the wound the principal hemorrhage was arrested and the wound everywhere touched with the thermo-cautery.

After the operation had been completed, the clamps removed and the wounds dressed, and perhaps as much as ten minutes more had elapsed, respiration suddenly failed. Artificial respiration was maintained for about 25 minutes. The application of ice—rapidly passed over chest and abdomen, alternating with brisk rubbing with a warm dry towel—was a very efficient stimulus to respiration. On forcibly dilating the sphincter and no appreciable effect was noted.

In the after treatment the wound was packed with iodoform gauze, which was allowed to remain for 24 hours. The mouth was frequently washed out with boric acid solution, with enough thymol added to correct the disagreeable odor. The tracheal tube was worn about two weeks, as a safeguard against pulmonary infection from the infectious mouth area. The patient was able to leave his bed soon and made an uneventful recovery.

A research into the effects of pressure and other mechanical injuries of the blood vessels, as well as the effects on the brain of closing the carotids, served as the basis of this technique. Its publication is reserved for a future paper.



CONCRETIONS OF LIME SALTS IN BOTH TUBES  
FROM A CASE OF DOUBLE SALPINGITIS.\*

BY WALTER R. LINCOLN, A. B., M. D.

Assistant in Gynecology, Western Reserve University.

## MR. PRESIDENT AND MEMBERS OF THE SOCIETY:

The specimens which I wish to present to the society this evening for examination consist of the tubes and ovaries removed from a case of double pyosalpinx by Dr. Robb, who has kindly asked me to exhibit them before you. I regret to say that the gross specimens have been considerably disturbed in obtaining material for microscopic examination. The history of the case is as follows:

*Clinical History.* Mrs. O'B., aged twenty-nine years, admitted to Charity Hospital, April 20th, 1896. She has been married twelve years, but has never been pregnant. Her menses have always been very painful and scanty. The pain has a cramp-like character and is referred more particularly to the lower part of the abdomen. Her last period began on April 3rd, 1896. The family history has no bearing upon the case.

Patient has always been fairly healthy. When she presented herself she complained of dysmenorrhea with occasional sick headaches, sterility and wandering neuralgic pains. On examination the ovaries were found to be bound down to the cornua of the uterus, while the uterus seemed to be adherent to the pelvic floor. Dilatation and curetting was performed on April 27th. On May 5th it was decided to remove the adherent tubes and ovaries.

*Operation.* Incision made in median line through thin abdominal walls. On opening abdomen and palpating pelvic organs the tubes and ovaries were found to be densely adherent to the broad ligaments and also to the posterior surface of the uterus. The adhesions binding down tubes and ovaries were broken up with difficulty, the separation leaving an extensive bleeding area on the posterior surface of the uterus. The tubes and ovaries on either side were transfixed, ligated and excised; several sutures were laid in the posterior wall of the uterus in order to stop the oozing of blood which was taking place. The peritoneal cavity was washed out with sterilized salt solution after the usual manner and drainage

\*Read before the Cleveland Medical Society, February 26th, 1897.

instituted by means of gauze which was brought out at the lower angle of the incision. Time of operation, thirty-five minutes. Time of anesthesia, fifty-five minutes.

*Macroscopic Examination, Right Adnexa.* Tube 5 cm. long, of almost normal size, diameter at uterine end slightly larger than normal. Superior surface presents remnants of long, firm membrane-like adhesion which runs along almost the whole length of the tube. Both ends of the tubes are closed. The fimbriae are somewhat matted together. No fimbriated opening can be found. There are concretions of hard chalky matter in the lumen of the tube at various points.

*Meso-salpinx* short and thickened; not translucent. At its outer border is a small thin-walled cyst about the size of a lima-bean. No adhesions posteriorly.

*Ovary* small, measure 3x1x2 cm. Surface irregularly pitted. Anterior-inferior surface shows remnants of adhesions.

*Left Adnexa.* Tube is smaller than that of right side; much convoluted. Uterine end not patulous. The fimbriated extremity has become intimately attached to the ovary and has been buried in a mass of adhesion membranes. Remnants of numerous firm adhesions to the tube are seen.

On section part of the lumen, near the uterine end, is found filled with a lime concretion of almost stony hardness and about one cm. in length. It may be felt like a pencil projecting outwards at the uterine end of the tube.

*Meso-salpinx* short and thickened; not translucent.

*The Ovary* can be made out as a small roundish body about the size of a hazel-nut at the outer border of the specimen. Remnants of adhesions are numerous.

On section, a few small Graafian follicles are seen and one larger one filled with old blood clot.

I wish to call your attention more particularly to the pencil-like deposit of lime-salts in the lumen of the right tube. I have made no special gross preparation of the left tube. The specimen can be seen in the bottle, preserved in 50% alcohol. The concretion appears as a rough, irregular body resembling a pencil or match-stick and projecting outwards from the lumen. It has been left in its original position. In fact I did not recognize its presence in this tube until I had prepared the specimen for section cutting. Only the upper part of the tube surrounding the pencil has been cut away.

Until it is removed one cannot say definitely how much further the pencil projects downwards into the lumen. The velamentous structure below the tube is not the meso-salpinx, but is a portion of the adhesion membrane previously described as running along almost the entire length of the tube on its superior surface.

*Microscopic Examination* of the left tube gave the following results:

*Peritoneal Coat.* No definite peritoneal coat can be made out. No trace of endothelial cells. Remnants of firm, well organized adhesions are numerous.

The *Muscular Coats* contain an undue amount of fibrous tissue. The vessels are numerous; they are large and well injected with blood. Here and there scattered round cells are seen. Some few epithelioid cells are seen.

*Mucosa.* No trace of mucosa can be found. All of the epithelial cells have disappeared. No lumen is demonstrable. In place of the lumen, clothed with its appropriate epithelial cells, is a mass of organized fibrous tissue, containing few blood vessels, but numerous lymph spaces.

*Anatomical Diagnosis.* Chronic endo-, myo- and perisalpingitis with obliteration of the lumen of the tube.

Microscopical examination of right tube gave similar results.

These preparations seem to me to be of special interest. The occurrence of sand-like bodies, the so-called psammomata, in the Fallopian tubes is, as we know, fairly common and need not be referred to now. I have in the course of many careful examinations, encountered not only these but also small irregular deposits of lime salts in the tubes. But this is the first occasion on which I have met with a concretion of this material of so large a size or one presenting such a peculiar shape. The fact that the condition is bilateral renders the case even more remarkable. Another condition noted here for the first time in my experience is the entire disappearance of the lumen of the tube, on the left side, and its replacement by fibrous tissue. It is a comparatively frequent finding to observe a tube which is obstructed, but in the majority of cases complete occlusion does not take place. Obstruction is far more frequent at the uterine and abdominal ostia than in the course of the tube. One often finds in cases of pyosalpinx that the lumen is

obstructed, but microscopic examination will, according to my experience, almost always demonstrate the presence of remnants at least of epithelial cells. Frequently nearly all the epithelial cells are desquamated and lie free in the lumen of the tube. Sometimes they appear in long more or less convoluted bands, or, at other times, in irregular masses. In this case no trace of epithelial cells is to be found.

The gross specimens of the tubes and ovaries will speak for themselves. The very numerous and dense adhesions rendered the operation a peculiarly difficult one. I wish to call your attention to the fact that although the tubes in this case are not markedly enlarged, the deposit of lime salts and the microscopic examination both show conclusively that an inflammatory condition has existed. This point is of importance as showing that in making a clinical diagnosis an approximately normal size of the tubes cannot be depended upon as a sure sign in excluding the existence of a single or double salpingitis.

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## PROGRESS OF MEDICAL SCIENCE IN THE UNITED STATES.\*

BY O. B. CAMPBELL, M. D., CLEVELAND.

When this nation had acquired its independence, as a matter of necessity the people were obliged to occupy themselves almost entirely with the task of obtaining an existence in the new country. The medical profession were compelled by their position to devote themselves almost exclusively to practice and to leave scientific investigation and discovery to a later period; but the work which the physicians and surgeons of the first part of the century did in America, and the way they performed it, proved them to be men of whom the nation need not be ashamed — men like Rush, Physick and Chapman, of Philadelphia; Hosack, Watson, Francis and Mott, of New York; the Jacksons, Warrens and Bigelows, of Boston; Dudley, of Kentucky, and many others whom time does not permit to mention. To the example and stimulus of the lives and work of such men may be justly ascribed,

\* President's address before the Cuyahoga County Medical Society, December 3d, 1896.

to a very considerable degree, the honorable position, acknowledged zeal, practical judgment and sound attainments of the American medical profession to-day.

We referred to the intimate connection that existed one hundred years ago, and that fortunately still exists between medical men and medical science in Europe and this country. The two are parts of a common whole. The war of the revolution nor the war of the rebellion scarcely disturbed this harmony.

The colonial progress of the medical profession of this country offers but few attractive features to interest the student of history. The American physicians, from Dr. Samuel Fuller, the first physician of New England, and one of the Fathers who came in the *Mayflower*, on down through the colonial period, could boast of neither journals, hospitals, nor medical schools to aid them in obtaining the elements of a practical professional education. Quite a number of those who afterwards became prominent laid the foundation of their medical acquirements abroad, and were the active agents here on their return of inaugurating a thorough system of medical instruction.

As in the early history of medicine its practice was restricted to the priesthood, and exercised by them in connection with their religious duties, so also do we find that in the older settled parts of America, as in New England, the clergy were both physicians and religious instructors. Men high in office, such as governors of provinces, also devoted attention to the practice of medicine. The systems of medicine followed were essentially those in vogue in Great Britain. It is probable, however, that the great mass of medical practitioners of this country during the first part of the eighteenth century were influenced by their own views of treatment, rather than by conscientious adherence to the theories of any one man, however elevated in the scale of professional excellence.

The medical authors of this country had but little prospect of fame or fortune at this early day to encourage them to enrich the medical literature of their times. The colonial physicians turned authors only on some special emergency of public duty, or for the purpose of promulgating and enforcing some new and useful mode of practice. The quality of the productions thus left us shows

that the capabilities of our early physicians do not suffer by comparison with those of our English or European brethren of the same period.

The earliest example of medical teaching in this country is probably found in the anatomical demonstrations of Dr. Thomas Cadwalader at Philadelphia, after his return from London, where he had studied under the celebrated Cheselden. This was before the year 1750. During 1750 there is evidence that a body was dissected in the city of New York by Drs. Bard and Middleton, and that the blood vessels were injected for the instruction of the young men engaged in the study of medicine.

Soon there were lectures delivered at various places. In 1762, Dr. Sheppen, in his anatomical lectures then inaugurated at Philadelphia, laid the foundation of a medical school, now the University of Pennsylvania. In 1767 steps were taken for the establishment of a school in the city of New York, which was fully organized the following year. The medical institute at Harvard College was organized in 1782 and located at Cambridge, and the fourth school, Dartmouth, at Hanover, New Hampshire, in 1797. These were all the medical schools in this country prior to the beginning of the present century. From such small beginnings have these medical colleges ripened into large institutions, which, with many more all over our fair land, are an honorable contribution to the medical advancement of the century.

During the colonial period and for some time after the establishment of the Republic, medical students derived their professional training, not from schools or universities, but from practitioners of greater or less eminence with whom they entered their names as apprentices or students. By this arrangement the student had the use of the library of his master, whose shelves, if not abundantly supplied, generally held a few books, and whose house usually contained in some closet or nook a few bones of the human frame, or perhaps an entire skeleton; his opportunities for clinical study consisted in witnessing and often assisting in the office practice of his master. There he pulled his first tooth, opened his first abscess, performed his first venesection, applied his first blister, administered his first emetic, and there first learned the

various manipulations of minor surgery and medicine. After a time his clinical opportunities were enlarged by visiting with his teacher the bedsides of his patients and becoming acquainted with the protean phases of disease. His clinical lectures were his master's talk on the cases they had visited as they rode from house to house. After three years spent in this sort of study and practice, the young man was supposed to have acquired enough of medical knowledge to enable him to commence the practice of his profession. Not until the last few years did medical schools pretend to give a complete medical education in this country—they were intended only to supplement the instruction of private teachers. The courses of lectures were few in number and brief in extent. Students continued to enter their names and study, for the major part of the year, with some medical man in their own neighborhood, and to attend lectures, as it was called, only three or four months of the year. Gradually a larger demand was made upon the schools, lecture terms were lengthened, professorships were subdivided and new ones were added, hospitals were utilized for clinical instruction, the schools continued to enlarge their curricula of study and at length added summer instruction to their winter's work; museums were established, chemical laboratories formed, microscopical departments created and all the appliances attached to the schools that are necessary in the investigation of structure, life and disease. The process of growth has not yet stopped; it is still going vigorously on. American schools are independent institutions, largely self-supporting, and responsible only to public opinion; this flexibility of the American method of medical education has and does still permit of change, growth and development, in correspondence with the demands of each succeeding age, more easily and more rapidly than is possible with the more conservative organizations of Europe. We can now justly claim that the graduates of our American schools, some of whom have, and others of whom have not, been fortunate enough to add to their American a European training, are in every way the peers of European physicians and surgeons.

The progress of medicine, like that of all sciences,

depends first upon the collection of facts. Whoever recognizes a fact, however insignificant it may seem to him, and reports the discovery, makes a valuable contribution to science. Dr. Johnson observed that the hardest thing in the world is to get possession of a fact; most observers report what they think to be, not what is. Whoever contrives a new instrument that increases the accuracy of physical exploration, whoever discovers a new method of examination or modifies an old one, by which some secret of the organization is disclosed, whoever demonstrates the correct explanation of any phenomenon of the human system, whether it be the crackling of bubbles in the chest or the mechanism of thought in the brain, whoever traces back any symptom to its cause, so as to make the former the pathognomonic sign of the latter, or whoever in any way by microscope, analysis, scalpel, or experiment, reveals anything that pertains to the structure or functions of man, in health or disease, contributes to the progress of practical medicine. It would be interesting and pleasant, if it were possible, to collect all contributions of this sort, small as well as large, that have been made by Americans during the history of American medicine, that have in their turn aided in the progress of medical science and art. While the parentage of many of these contributions is well known and recognized, there are many others now incorporated into the body of medical science that cannot be traced to their discoverers. For instance, how many know, even of the profession, that as long ago as 1781 Richard Bailey, a surgeon of New York, recognized for the first time the points of difference between angina trachealis and putrid sore throat; or, in modern terms, between membranous croup and diphtheria. His observations were founded on autopsies of the two diseases, and therefore rested on a scientific or anatomical basis. So important a discovery at that early time did not seem to attract attention, but in later years the same views were adopted and confirmed by the profession. Dr. Green, a specialist, achieved notoriety in New York in the early part of the century. By opening the way into a new region he made it possible for the disciples who followed him, with better appliances and ingeniously constructed instruments, to explore much more



fully. Dr. Alfred Stillé was among the first, if not the first, to call attention in print to a condition of the heart now known as irritable heart. The profession are indebted to Dr. Austin Flint, of New York, for calling their attention to the importance of distinguishing the variations of pitch elicited by percussion, as an aid in ascertaining the condition of the organs of the chest. Dr. Oliver Wendell Holmes, the poet physician, contributed much to medical science when in 1843 he prepared a paper and proved that the disease known as "puerperal fever" is so far contagious as to be frequently carried from patient to patient by physicians and nurses. Dr. Horner, of Philadelphia, in the early part of this century, first detected the origin of rice-water discharges in Asiatic cholera. Our present knowledge of gastric digestion is largely due to the opportunities which gastric fistulæ have afforded physiologists for the inspection of the living stomach, or the stomach at work; and medical science owes a debt of gratitude to Dr. Wm. Beaumont, who was a surgeon in the United States Army (1822), for leading the way in this method of experiment and observation.

In 1846, from the general hospital of Boston, Mass., was proclaimed the fact of easy and safe artificial anesthesia by means of sulphuric ether. The greatest contribution to practical medicine that the world has ever received, of itself enough to make American medical science honored and memorable—the discovery of anesthesia—has relieved and prevented an amount of human suffering of which it is impossible to form an estimate or an adequate conception. The knowledge of anesthesia is now so nearly universal, and the blessings which attend its use so constant, that we are sometimes apt to think as little of its existence and power as we do of the presence and power of light.

The enterprise and characteristic push of the American physician is also manifest in the development of surgery, beginning in this country with Dr. Wm. Shipman and Dr. John Warren, the first professors respectively of anatomy and surgery, in the University of Pennsylvania and at Harvard; and with John Syng Dorsey, of Philadelphia, the author of the first treatise on surgery ever published in this country, which was extensively used as

a text-book in our schools and also for a considerable period in the University of Edinburgh.

I might occupy your time for one hour naming surgeons who through the century have occupied conspicuous places in this country as teachers and practitioners, and also for original research and operation, but examples are sufficient. Ephraim McDowell will be forever famous in the history of surgery as the originator of ovariectomy. The brilliant career of Valentine Mott, of New York, is a stimulus to the surgeon still; at thirty-four years of age he tied the innominate artery (1818), a feat never before accomplished; other great operations were performed in rapid succession, and fame soon rested upon his brow. It is said of him that no surgeon, living or dead, ever tied so many vessels, or so successfully, for the cure of aneurism, the relief of injury, or the arrest of morbid growths. Desault and Physick are great names in surgery. Splints for fracture of the long bones will ever bear their names, though many improvements and modifications have since been made. American surgeons are now, and have been decidedly in advance of every other nation in the treatment of these fractures. Also in the treatment of affections of the joints American surgery stands preeminent. In excision of the bones and joints no country has a better record than ours; in this field of labor many of our surgeons have achieved some of their most brilliant triumphs. American military surgery is to be credited with the ability, courage and zeal manifested throughout the civil war, by the officers of the medical department under all circumstances and upon all occasions. When we recall that there were about twelve thousand surgeons and assistant surgeons in active duty, either in the field, in the camp, or in the hospital, the amount of labor performed by this army of doctors during the war may be faintly guessed. When it is stated as a matter of history or record that 157,423 cases of wounds and diseases occurring among the white troops were treated in general hospitals alone, exclusive of the vast numbers that were attended in regimental and post hospitals, it is not too much to say that the country owes the medical staff a great and lasting debt of gratitude. As a result of the war and the work of the army surgeons, the Army Medi-

cal Museum at Washington was, under the auspices of the Government, made possible, and it is now confessedly the greatest institution of the kind in the world; it contains about 11,000 pathological specimens and more than 1,300 pieces of apparatus and other objects, comprising objects in surgery, medicine, anatomy, microscopy and comparative anatomy, plaster casts, drawings, crania of Indians, skeletons and crania of animals, birds, reptiles and fishes, and a complete collection of models of ambulances, litters and other appliances for the transportation of the sick and wounded; artificial limbs, and photographs illustrative of surgical operations,—in short, everything that goes to make such an institution complete. In the same building is the medical library of the Surgeon General's office, containing 108,750 books and 168,736 pamphlets, exclusive of duplicates, the largest and finest of the kind in the world. The practical value of large and special museums in connection with good libraries devoted to the same specialties is great, and the numerous small collections which are scattered over the country in hospitals and private cabinets are simply so much wasted and unused material, in a scientific point of view, though gratifying to the owner as trophies or mementoes. The value of a single specimen of any lesion is usually very small; it is only when they can be brought together by scores and compared that useful and reliable results can be hoped for, and as we grow older and wiser, in this country, we will probably have fewer journals, medical schools, museums and libraries than we now possess. For all of these means of culture and progress to have the best effect requires concentration. We must remember that all scientific progress is based on antecedent fundamental facts discovered by slow, laborious and painful steps. The labors of Darwin, Huxley, Herbert Spencer and Lister in the last decade have made possible the practical success in the present decade.

A review of the surgical progress of the last decade alone constitutes one of the most brilliant pages of the history of medicine, and surgeons may fairly claim that their branch of medicine has kept equal pace with the stupendous advance made by the collateral sciences. There is at this time no diseased organ or tissue of the

body that escapes the remedial scalpel; the surgeon no longer questions the propriety of surgical interference in hitherto dark portions of the human anatomy; he is concerned only in the technique of that interference, and to the improvement of the surgical technique the able American surgeons have done more than their share. The discovery of antiseptics marks a new era in medicine, it has revolutionized the whole system of surgery. The success of modern surgical treatment, even with the imperfect knowledge of the bacteria that we now possess, is such that no surgeon thinks for a moment of comparing the results of any given operation with those obtained in the pre-microbic epoch. The discovery of practical antiseptics has been so far-reaching in its effects upon general sanitation, the development of asepsis, the practical results of surgical interference, as to give these branches of medical science impetus and dignity in the eyes of the world, unparalleled in any previous age. The theory of antiseptics involves no new and unknown or untried principles. The principle is as old as the installation of creosote through the smoking of meats, or the preservation of fresh fruits and vegetables, or meats, by subjecting them to great heat and then protecting them from contact with the surrounding atmosphere. These processes cannot often be applied, of course, directly to the living subject, but they may be applied indirectly, and with equal preservative power. The therapeutics of to-day is largely in the direction of preventive and germicidal treatment.

Through the tolerance of dissections of the dead, the lessons of anatomy had been fully taught. With the progress of chemistry and the practice of vivisections, physiology had been correctly learned. It remained still for antiseptics to furnish the key that should unlock the secret chambers of pathologic science, into which the electric light of these declining years of the nineteenth century has carried our vision to a new world of scientific knowledge.

Bacteriology has added much to our knowledge of tuberculosis and given more precision to its treatment, but that knowledge is still imperfect and its treatment far from satisfactory; much less has bacteriology added

to our knowledge of the carcinomata, which still remain one of the mysteries of medicine. We have for years studied the varying departures of tissues from the normal to the abnormal type, and bacteriologists have in vain sought to connect the atypical structure of carcinoma with some bacterial development; but no man has yet appeared upon our horizon to pick the lock of a mystery to which Heaven seems to have allowed our generation no key. Looking to the future we can not doubt that the secret of the formation of the carcinomata will yet be discovered, but it will be through the influence of some now totally unknown factor. When that time shall come carcinoma and tuberculosis, the great outlets to human life, will be classed among the preventable diseases. These two affections have cost more human lives annually than cholera or yellow fever. Yet no government has ever set on foot any systematic and regular inquiry into their causation or propagation.

It has been discovered, and is the belief of a majority of the ablest students and physicians in this country and Europe, that cholera can only be communicated to those who in some way swallow its germs. During the past two years Asiatic cholera has broken out in many parts of western and central Europe, but modern methods of combating the disease have held it well in check everywhere. In short, this most dreaded pestilence has been brought well under control by medical and sanitary science; and now the civilized world has been reassured that the progress of our science has robbed this scourge of its greatest terrors. May we not therefore confidently hope—yes, expect, that our noble and benevolent profession, moving on so rapidly in its progress in the knowledge of medical and sanitary science, may yet stay the destruction of human life caused by tuberculosis and carcinoma?



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## Editorial.

### THE DOCTOR'S OWN HEALTH.

This is a subject of vital importance to us all, and yet usually neglected. We are too busy looking after the health of other people to pay sufficient attention to our own, until by and by we awake to the fact that we haven't any. Occasionally a physician takes warning before it is too late and looks to the preservation of his own failing physical powers, or guards the possible approaches by which disease is likely to attack him. Now and again his voice is raised in prudent warning to his fellows, and it is well if they not only hear but heed. Such a warning is sounded by Mr. John W. Teale, F. R. C. S., in the *British Medical Journal* for December 19th, and it is

for the most part so practical and sensible that we shall present its substance here, utilizing an excellent abstract prepared by the *New York Medical Journal*, and presenting therewith some observations of our own:

"What would most conduce, says Mr. Teale, to the success of a general practitioner are power of concentration and command of temper.

"By power of concentration, he says, he means that power by which a man, however wearied, on entering a house is able at once to abstract his brain from everything that has gone before, and to concentrate his mental faculties on the case that is before him. Patients are naturally somewhat selfish, and are very quick to observe if they do not get full attention, and if, when the finger is on the pulse, the mind is with the patient that preceded him."

This is true, and different minds vary greatly in this capacity for change of subject. To one it is easy to drop one subject and take up another without losing impetus or interest; while another gains power and momentum only by long and persistent contemplation, and cannot readily dismiss the old theme and pursue a new. This man will work at a great disadvantage in the variable and irregular toil of medical practice. But he must acquire that agility of mind which will enable him to give undivided attention to the matter in hand.

"Secondly, command of temper. To the quick, high-strung, sensitive man, exhausted by the worry and anxiety of daily life, thorough command of temper with testy, querulous, exacting patients can be obtained only by rigid self-control begun in early life. To be forever bearing in mind that the patient is the sufferer, that testiness and ill-temper are due to physical weariness and distress, and not to disloyalty to the doctor, is a task that will try the strongest nature."

Ay, verily! Who of us has not felt, in the presence of the spoiled child or the hysterical woman, that he would give the price of a visit for permission to make one thorough application of a peach-tree switch? Who has not nearly choked himself or risked apoplexy, and actually produced hepatic disorder by swallowing his ire and remaining outwardly perfectly calm when he yearned to take the patient and the patient's friends and bump their

heads together. One can overlook and forgive a great deal in a patient; but it is the patient's friends who break down the doctor's long-suffering endurance. One must constantly bear in mind the maxim of Dr. Amboyne, "Put yourself in his place, in her place, in their place."

"If, then, asks Mr. Teale, concentration and command of temper are essential to success, how can they best be cultivated and obtained? Surely by living as far as possible a simple, healthy outdoor life, in constant physical training. Young men nowadays, as a rule, at some period of their student life pass a year or two in a high state of training, but how many of them, amid the worries and distractions of a busy practitioner's life, keep up that condition of training to mid-life, still less to old age? Why, he asks, should a man become stout and short of wind because he has reached fifty? Simply because he is struggling with his life work when his physical condition is not fit to grapple with it.

"Assuming that a man is physically sound, and has cultivated athletic exercises in youth, it is quite surprising how easily that condition can be maintained provided only it be done regularly. Mr. Teale says he has been told that the 'strong men' who exhibit in public rarely practise their feats in private, and rely on light dumbbells to keep them in good condition."

Doubtless Mr. Teale is right again. But there is one great obstacle in the way of maintaining condition by exercise, and that is the impossibility with the majority of us to take the exercise or do anything else *regularly*.

"He thinks that for most men light Indian clubs, or the Ranelagh, or exercises on both of them, carried out systematically night and morning, will do all that is needed. It is surprising what a rest, after a hard day's work, some active physical exercise with the arms will be found to be."

Of all the exercises for health there is probably none equal to horseback riding. The bicycle is a substitute but it is not nearly equal to the horse. Either of these has the advantage that it can be used in the ordinary pursuit of business. If some of our doctors would take to the saddle instead of sitting cramped in a buggy, they would not get into that state which Holmes describes—of



imagining one's self the mummy of an Indian buried long ago in the sitting posture. He might imbibe some of the horse's feeling of exuberant vitality and imagine himself a Centaur with the intelligence of the man and the physical strength of the horse.

As an exercise for health we commend sword-play. Fencing has many advantages, one of which is the recreative element.

"It is a mistake to suppose that the busy man wants a great deal of physical exercise. His ordinary day's work, with what it involves in taxing mind and body, is generally nearly enough for him, with some physical exercises as suggested."

This is a point we desire to emphasize. Oftentimes the exercise should be no more than sufficient to divert the blood from the nervous to the muscular system and so equalize the circulation. Thus a little physical exercise is as good as a rest, or better. But the theory of "rest by change" is not always a good one to follow in practice. Sometimes nothing will suffice but what might be called "rest by rest"—complete rest, such as Lawyer Vincent, in Weir Mitchell's "Characteristics," was accustomed to take—by staying in bed from Saturday night till Monday morning.

"It is always well to have something in hand, for extra strain comes most unexpectedly. It is well to cultivate the art of sleeping for a few minutes at any time. A man can live safely only on the interest of his vital strength. Any withdrawal of principal should be promptly replaced."

In regard to sleeping for a few minutes at any time, it is said that Mr. Gladstone has preserved his wonderful vigor of body and mind by this habit. If memory serves rightly, the late Dr. Samuel D. Gross practised and commended the habit of a nap in the middle of the day, preferring the time of arriving home from the morning round of calls while waiting for his dinner, rather than the more usual "post-prandial." From personal experience, we beg to recommend this plan; and also the habit—for it is a habit that in spite of constitutional wakefulness can be acquired—of going to sleep instantly on going to bed. This habit can be so trained into a man that, like General

Custer on the plains, he can lie down in the midst of the greatest dangers and perplexities and, dismissing them all by the simple act of lying down, go instantly sound asleep.

"For a sound man, the author continues, everything that is good is wholesome, taken at proper times and in proper quantities. We should understand that within these limits every good thing well cooked is well for the stomach. After a man is twenty-five or thirty he wants only as much food as will maintain his weight, and not add to it. It is possible to be too busy to dine, in which case a cup of soup, or a sandwich and glass of wine, is better than a hearty meal. A good dinner implies leisure for digestion. Half an hour's leisure before dinner will often enable a man to eat a hearty meal. For most medical men the author believes a late dinner is preferable, for if dinner is taken in the middle of a doctor's work either the meal or the patient must suffer. The fewer the meals the better the health. Two good meals and a moderate one are enough for most healthy men leading a busy life."

As to when the heartiest meal should be taken will depend on the doctor's working hours and other circumstances. For a time the tendency was in this country to adopt the European plan of dining in the evening, the six o'clock dinner being considered quite in proper form, especially by certain admirers of the English. Of late it is stated there is a trend, even in England, toward the American style of taking a hearty meal at noon, business being suspended for a longer period for that purpose. Doubtless it would be better in every way could the reform be brought about, if we would burn more sunlight and less gaslight. By rising earlier we could spare sufficient time for a hearty meal and the necessary rest in the middle of the day, thus breaking the strain of an almost continuous day's work, and, taking a lighter meal in the evening, go to bed at or soon after dark, as Nature intended.

"With regard to stimulants, says Mr. Teale, wines may be mixed, provided they are good and too much of them is not taken. Spirits are good when a person is jaded or exhausted, as a change from wine at dinner, but

they are unnecessary and hurtful when taken between meals or at bedtime, except for special reasons; three hundred and sixty-five glasses of whiskey taken in a year at bed-time are an unnecessary and severe tax on the liver when its work is in full swing."

We feel very chary of advising physicians to use stimulants, even when jaded or exhausted. The seasons of fatigue and worry come so frequently that the occasional easily merges into the habitual and many a bright professional career has ended shortly in a dark eclipse. The fine and sensitive nervous organization found so often in the medical profession is especially susceptible to the influence of the drugs that enslave. Physicians should be very careful in using them personally, as well as in prescribing them for others. When indicated they never do harm, when no longer indicated they should be stopped at once.

"An ordinarily healthy man may have a cold bath daily almost up to any age, but, as the object is not only to get up a reaction, but to maintain it, most hard-working men require a fire and a hot bath towel. If this is followed by a course of Indian clubs in his flannels, a man will be fit to face any weather."

This is good advice. We know men who could not get started at their immense amount of daily work, to say nothing of getting through it, without the daily morning cold bath.

"Mr. Teale thinks that the same underclothing should be worn winter and summer and only the outer clothing varied. Colds are generally caught either in ill-warmed rooms or through ill-protected feet."

True again; but we should, in this country (not, by a number of degrees, in England), add overheated rooms as a frequent cause of "taking cold."

"If a physician is chilled through by a cold drive, he should walk home, if possible, for the last mile or two, keeping on his heavy wraps to restore circulation."

A good plan; but whoever saw one of our city doctors trotting along in the street leading his horse toward home. He is more apt to sit shivering in the buggy and warm up the horse.

"Medical men often run the risk of sleeping in badly

aired beds, and the strongest constitution cannot stand such an infliction. To guard against this, a light flannel dressing-gown to prevent contact with the damp sheets. A fire should be lighted whenever it is possible, for it is the best and cheapest health-giver in the world."

"With a well-arranged fire-place, says Mr. Teale, most healthy people can learn to sleep with their window open in winter as well as in summer. No amount of precaution can make turning out of bed at night other than dangerous, and Mr. Teale advises that a cup of hot milk with a teaspoonful of brandy be taken in order to reduce the risks to a minimum."

Many a doctor seeks to avoid the danger of getting up at night by sending his wife to the door. Even though all the life insurance carried is on the doctor and not on the wife, there are better expedients. One is, to have a speaking tube reaching from your front door to near the head of your bed, where you can reach the flexible portion without getting out. If you are afraid of your voice being recognized, your wife can do the talking through the tube. If you must rise, have a heavy woollen dressing gown reaching from your ears to your soles hanging at the bedside, and a pair of felt slippers where you can step into them.

If you must go out, we doubt the advisability of taking a hot drink (which would start the perspiration) just before going; better take that on returning.

"Concerning recreation, the author goes on to say that every medical man requires an outdoor sport of some kind, and should have it if possible. Golf and cycling are good, but he thinks that fly-fishing is the best of all. It takes one usually into the country, the exercise is gentle and varied, the interest is absorbing, and it is far better than hurrying half over Europe in a second-class railway carriage in search of a change of air and scene."

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#### DR. WOODWARD WINED AND DINED.

A meeting of the Cleveland Medical Society, to be held in the dining hall of the Hollenden Hotel March 8th, at 6.30 P. M., was called for the purpose of bidding adieu

to one of its most respected members, Dr. R. M. Woodward, of the Marine Hospital Service.

About fifty members of the society were present, and the occasion was one very unusual in medical circles, as indicated by the amount of sentiment and depth of feeling aroused by the departure of Dr. Woodward, who is about to leave the city on account of a change in his station. The doctor has been a member of the society about two years, during his service at this port. Through his genial disposition and high medical attainments he has gathered about him a wide circle of friends both in the medical fraternity and in society circles of the city. He has been stationed at many important places, among which are Chicago, Baltimore, Washington, D. C., and Rotterdam, Holland. In Holland, Dr. Woodward had the important duty of inspecting emigrants about to take their departure for the United States during the period of an active epidemic of Asiatic cholera in the East.

Quarantine duty is a service of the utmost importance to the health of our nation, but is attended by vast dangers and exposure to the members of the Marine Hospital Service and their families, stationed at dangerous points where quarantine stations are established. The new station to be occupied by Dr. Woodward was described by one of the society as being located somewhere between H— and D—nation, though he had not been able to find it on the map. The point to which he has been ordered is a quarantine station located on Reedy Island, Chesapeake Bay, 38 miles below Philadelphia and guarding the entrance to that great and important city. The island is a mere sand-bar or reef, and the buildings are held up on piling driven in the sand, the nearest town of any importance being a village of 320 inhabitants, distant about three miles, and Dr. Woodward remarked that as the statement of the population was taken at the last census it is more than probable that the extra twenty have since died.

After a bountiful repast or banquet the toastmaster, Dr. J. E. Cook, announced that the program was to be entirely informal and that it was desired that all should speak freely regarding the object for which the meeting was called and personally expressed his deep regret that

one who had borne our friendship so well, although for so short a time, was called upon to leave us.

Remarks followed, partaking of all kinds of sentiment, including reminiscences of the past, prophecies of the future, humorous wit and story telling, some of the stories having their origin as far back as Noah's Ark.

The speakers were Drs. Cook, Tuckerman, Wirt, Powell, Hess, Wenner, Straight, Humiston, Parker, Rosenwasser, Sherman, Foshay, Hoover, Corlett, Lowman, Upson and Friedmann, followed by Dr. Woodward, who stated that he felt like one listening to his own funeral sermon, as good things are seldom said about a man until he is dead. He stated that he attributed much of his success in Cleveland to his station as a medical officer in the Marine Hospital Service, and not to his personal qualifications, to which the meeting protested by crying "No, no!" The doctor proceeded by saying that his relations with the Cleveland Medical Society and with the citizens of Cleveland had been of a most pleasant nature, and that there were many reasons why he should regret taking his departure. Owing to the nature of the service in which he was engaged, it was impossible for him to become really proficient in any single department of medicine, being now called to inspect, disinfect and describe different parts of a ship, at another time to indulge in the technicalities incident to a correspondence with the officials at Washington, or to enter upon the treatment of any case, either medical or surgical, coming up for care in his department. The work has many pleasant features, as well as some which are more or less disagreeable, and the work of a quarantine station is attended with a sense of responsibility, helped out somewhat by a feeling that some good may accrue to the nation. The doctor said that his new station would be occupied by himself, his family and fourteen assistants, and that his duties would be in the line of quarantine work, inspecting all vessels arriving from foreign ports, and that each must be given a certificate of health before it would be allowed to proceed. In case infectious diseases were found on board, the passengers would be landed at a hospital near by for treatment and quarantine, and the vessel would be returned to him for disinfection and detention until such

time as it was considered safe for making a landing.

The health of Dr. Woodward and his family was drunk in a glass of light wine, and the most sincere assurances of good-will were offered the doctor for both himself and family.

In closing, the doctor extended a cordial invitation to the members of the society to visit him on any possible occasion, and particularly during the meeting of the American Medical Association about to be held in the city of Philadelphia, at which time special inducements will be offered to call physicians in that direction.

C. W. S.

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## **New Books.**

**ANOMALIES AND CURIOSITIES OF MEDICINE.** Being an encyclopedic collection of rare and extraordinary cases, and of the most striking instances of abnormality in all branches of Medicine and Surgery, derived from an exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated, and indexed. By George M. Gould, A. M., M. D., and Walter L. Pyle, A. M., M. D. Imperial octavo, 968 pages, with 295 illustrations in the text, and 12 half-tone and colored plates. Philadelphia: W. B. Saunders, 925 Walnut street; 1897. Prices: cloth, \$6.00 net; half morocco, \$7.00 net. Sold only by subscription. W. T. Galbraith, 602 New England Building, agent for Cleveland and vicinity.

The scope of this work is sufficiently indicated in the sub-title foregoing, but the book should be seen to be properly appreciated. It is not merely a collection of curiosities thrown together in a heterogeneous mass, to excite the wonder of the casual reader. It is arranged as a reference book wherein the clinician of to-day can ascertain whether the wonderful case which has come under his own observation is so very wonderful after all in comparison with others upon record. After several years of research in the great medical libraries of the United States and Europe the authors, whose fitness for the work all will concede, have produced a book the like of which was never before in existence. Take, for instance, Chapter I., which is on Genetic Anomalies. Reference is given to all the most remarkable cases of menstruation, vicarious and compensatory—from the skin, from the breasts, from the eyes, from the ears, from the mouth, from the extremities, from old ulcers, wounds or cicatrices; from the rectum or urinary tract, after removal of the uterus or ovaries, hematemeses as a means of, migratory, post-mortem, black, suppression of, in man; vi-

carious in the male; during pregnancy and lactation, child-bearing after cessation of, precocious, protracted, late establishment of; precocious impregnation, twins born to a child-mother, pregnancy before the appearance of menstruation, fecundity in the old, multiple births in the aged, impregnation without completion of the copulative act, artificial impregnation, unconscious impregnation, conception with deficient organs, conception soon after a preceding pregnancy, superfetation, children of different colors.

The first is by no means the longest or most curious chapter, but is merely given as an example of the subdivision of the subject. Subsequent chapters are devoted to Prenatal Anomalies, Obstetric Anomalies, Prolificity, Major Terata, Minor Terata, Anomalies of Stature, Size and Development, Longevity, Physiologic and Functional Anomalies, Surgical Anomalies of the Head and Neck, Surgical Anomalies of the Extremities, Surgical Anomalies of the Thorax and Abdomen, Surgical Anomalies of the Genito-urinary System, Miscellaneous Surgical Anomalies, Anomalous Types and Instances of Disease, Anomalous Skin Diseases, Anomalous Nervous and Mental Diseases, Historic Epidemics, Bibliographic Index.

A physician may possess every text-book, treatise, monograph, annual or essay published in the English language hitherto, but his library is not complete without this volume. It is one of the few valuable books, without any pretense of originality, made by working over the literature of all languages and all times.

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THE DISEASES OF INFANCY AND CHILDHOOD. FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By L. Emmett Holt, A. M., M. D., Professor of Diseases of Children in the New York Polyclinic; Attending Physician to the Nursery and Child's and Babies' Hospitals, New York; Consulting Physician to the New York Infant Asylum, and to the Hospital for Ruptured and Crippled. With 204 illustrations, including 7 colored plates. New York: D. Appleton & Co. 1897.

Dr. Holt's book owes very little to preceding books on the same subject. Not that the author is not acquainted with the literature of the subject, but he has not admitted matter into his treatise merely because it was in some other. It has all been passed through the crucible of his own experience, and every page gives evidence of a practical knowledge of the subject. The tables, too, and statistics are nearly all from the institutions with which the author is connected, or collected from official sources in the city of New York or some other original source, and are not such as may be found



in every modern text-book or work of reference. The book is especially rich in pathology and pathological anatomy, thus giving a sound understanding of the symptomatology, etc., and leading to proper ideas of treatment. The author confines himself to the consideration of disease in infancy and early childhood, not trespassing far upon youth; and views it from the standpoint of the physician, invading the domain of surgery only so far as relates to early diagnosis. Within these boundaries Dr. Holt's work will not be excelled in many a long day.

As a very minor excellence, but pleasing, one notes that it is not *over illustrated*—a fault which the facility of the modern photo-engraving art has led some book-makers into. The illustrations, besides being all good and new, illustrate something necessary to be illustrated. He who buys this book will have as good reading upon the subject of the diseases of infancy and childhood as can be compassed in 1117 pages, or bought for \$6.00.

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THE DISEASES OF THE MALE URETHRA. By R. W. Stewart, M. D., M. R. C. S., Surgeon to Mercy Hospital, Pittsburg, Pa. New York: William Wood & Co. 1896.

The author considers the field he has undertaken to work a neglected one in which, until recently, erroneous anatomical and pathological views have been obstinately maintained. By the use of improved instruments for examination, and the application to this field of the recent advances in pathology he places the subject of urethral diseases and their treatment in the light of modern knowledge. The book contains 221 pages divided into twenty-six short chapters illustrated with 59 engravings. Those who work especially in this line will certainly want the book, containing as it does the views of one who has attentively studied the subject and here offers his working knowledge. Those of less experience will value the book as a positive and lucid teacher, explicit even as to detail.

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AUTOSCOPY OF THE LARYNX AND THE TRACHEA. (Direct examination without mirror.) By Alfred Kirstein, M. D., Berlin. Authorized translation (altered, enlarged and revised by the author) by Max Thorne, A. M., M. D., Cincinnati, O., Professor of Clinical Laryngology and Otology, Cincinnati College of Medicine and Surgery; Laryngologist and Aurist, Cincinnati Hospital, etc. With 12 illustrations. One volume, crown octavo, pages xi-68. Extra cloth, 75 cents, net. The F. A. Davis Co., publishers, 1914 and 1916 Cherry street, Philadelphia; 117 W. Forty-second street, New York; 9 Lakeside Building, Chicago.

Autoscopy is not, as might be implied by the name, a method of looking into one's self. It is a method of get-

ting a direct view of the interior of a patient's larynx, *i. e.*, without the use of a reflecting mirror as in the familiar laryngoscopy. The patient's head is bent backward so as to bring the mouth into as nearly a straight line with the axis of the trachea as possible; then the base of the tongue is pressed forward and downward by a suitable spatula, or tongue depressor, and in a certain number of cases a good view of the larynx and posterior wall of the upper rings of the trachea may be obtained. The technique of the method and a review of its advantages and disadvantages, as compared with those of laryngoscopy, may be found in this little volume.

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OPHTHALMIC OPERATIONS AS PRACTICED ON ANIMALS' EYES. By Clarence A. Veasey, A. M., M. D., Adjunct Professor of Diseases of the Eye, Philadelphia Polyclinic, etc. With 56 illustrations. Philadelphia: The Edwards & Docker Co.; 1896; 99 pages. Price, \$1.00.

Dr. Veasey's little book is something of a novelty in the line of ophthalmic manuals, aiming as it does to aid the beginner in ophthalmology by its concise directions for the employment of animals' eyes in practising various operations. In reality it goes further, as it gives descriptions of instruments and their uses valuable to the beginner, and the directions for operating are equally applicable to the human subject. The instruments and methods of employing them are very completely illustrated, and the book is printed in extra large type, adapting it well for reference during the practice of operations. The book will recommend itself peculiarly to those who are not in a position to receive personal instruction.

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#### PAMPHLETS RECEIVED.

Nearly all of the pamphlets mentioned here may be had by sending a request to the author. A writer should hardly be expected to donate, upon request, a printed copy of his article and also pay the postage; yet numerous requests for reprints are written upon postal cards. Kindly enclose a stamp, and mention the GAZETTE.

ACTINOMYCOSIS. By Parker Syms, M. D., New York. Surgeon to the Lebanon and the Colored Hospitals; Assistant Surgeon to the New York Cancer Hospital. From *Annals of Surgery*.

THE INDICATIONS FOR VENTRAL SUSPENSION OF THE UTERUS. By Augustin H. Goelet, M. D., Professor of Gynecology in the New York School of Clinical Medicine, etc. From the *International Journal of Surgery*.

A STUDY IN CREDULITY. Annual address before the Ohio State Medical Society, May 28th, 1896, Columbus. By Dan Millikin, M. D.

**AN OPHTHALMOSCOPIC STUDY OF A CASE OF HEMORRHAGIC NEURO-RETINITIS.** By Charles A. Oliver, A. M., M. D., one of the attending surgeons to the Wills Hospital; one of the Ophthalmic Surgeons to the Philadelphia and Presbyterian Hospitals, etc. From the *International Medical Magazine*.

**NOTES ON SOME OF THE NEWER REMEDIES USED IN DISEASES OF THE SKIN.** Address of the Chairman, section on Dermatology and Syphilography, 47th annual meeting of the American Medical Association, Atlanta, Ga., May 5-8, 1896. By L. Duncan Bulkley, A. M., M. D., New York. From *Journal American Medical Association*.

**THE MEDICAL PROFESSION AND MANUFACTURING PHARMACISTS.** By A. L. Benedict, M. D., Buffalo, New York. From *The American Medical Journalist*.

**PHONO- AND PNEUMO-MASSAGE IN SUPPURATIVE DISEASE OF THE EAR.** By Louis J. Lautenbach, A. M., M. D., Ph. D., Surgeon to the Pennsylvania Eye and Ear Infirmary; Nose and Throat Physician to the Odd Fellows' Home, etc., Philadelphia.

**WHAT ARE THE CURATIVE EFFECTS OF PHONO-MASSAGE ON THE MIDDLE AND INTERNAL EAR?** By Louis J. Lautenbach. From *Journal American Medical Association*.

**THE NOSE AS A FREQUENTLY UNRECOGNIZED CAUSE OF DISEASE.** By Louis J. Lautenbach. From *Codex Medicus*.

**SOME OBSERVATIONS ON CORNEAL ASTIGMATISM AND CONDITIONS THAT CHANGE CORNEAL CURVATURE.** By Louis J. Lautenbach.

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## Society Reports.

### CLEVELAND MEDICAL SOCIETY.

*Regular Meeting, February 26th, 1897.*

The sixty-ninth regular meeting of the Cleveland Medical Society was held in the rooms of the Chamber of Commerce, The Arcade, on Friday, February 26, 1897, the usual large attendance being present.

DR. POWELL arose to state that it had come to his attention that efforts were being made to introduce water-gas into the city of Cleveland for heating and illuminating purposes. The gas was known to be very dangerous to life, as shown by experience in other cities, being possessed as it is of no odor, and containing a large proportion of carbon monoxid. Death seems to be on the increase where it is used, and Boston physicians, as well as those in other places are protesting against it. He wished to introduce the following resolution for the action of the society:

WHEREAS, The voters of the city of Cleveland are to be called upon this spring to vote upon the introduction of water-gas into our city, and,

WHEREAS, It is considered dangerous to life, it is the sense of this society that it should not be used, be it

*Resolved*, That a committee of five be appointed by the society to take the matter under consideration, and to report at our next meeting.

The motion was seconded by Dr. J. E. Cook. Dr. Wirt wished to amend the motion to the effect that no stockholder should be placed upon the committee. Dr. Spenzer, chemist of the society, remarked that the new gas was known to contain several times as much carbon monoxid and less heating power than ordinary gas. The chair appointed the following committee to take the question under advisement: Drs. H. H. Powell, J. L. Hess, A. J. Cook, J. G. Spenzer, W. H. Humiston.

DR. HESS, City Health Officer, read a communication which he had prepared for the action of the City Council looking to an ordinance prohibiting expectoration upon the floors of street-cars in the city, and stated that in such matters he desired to have the co-operation of the Cleveland Medical Society, and in order to bring the subject properly before the society, made a motion favoring the adoption of the ordinance recommended. Several members spoke in favor of Dr. Hess's motion, and it was approved by vote of the society.

DR. HOOVER presented a patient suffering from aneurism of the aorta, illustrating the importance in diagnosis of sounds transmitted through the bronchial tubes and other air passages, and heard distinctly by placing the end of the stethoscope in the mouth.

DR. WIRT presented two patients, one a girl four years of age, suffering from hemiplegia resulting from a previous diphtheria, and a training nurse employed by him illustrated the methods of treatment in use with the patient, in exercises with dumb-bells, a straight rod, and by body movements. The second case was a boy suffering from white swelling of the knee joint. The knee was dressed with a special appliance devised for straightening the joint, which had become considerably flexed as a result of inflammation.

Under the regular program of the evening, DR. JOHN G. SPENZER spoke to the society on "The Nutrient Value of Modern Bread," showing samples. The samples exhibited by the doctor entirely covered one table, and were composed of nearly every variety now commonly in use, including German, French and English specimens. The doctor stated that the science of bread-making had been gradually developed from the days of ancient Egypt, when meal was moistened and dried in the sun. In Bible times we know that leavened and unleavened bread were in use. Breads were spoken of as fermented bread, aerated bread, bread made from sour dough, white bread,

brown bread, whole wheat bread, two-thirds wheat bread, etc. Breads were exhibited with crust and with no crust, and the merits and amount of nutrition in each were discussed.

DR. W. H. HUMISTON, in speaking of the digestibility of bread, stated that he had found that baking bread for one and one-half hours increased its digestibility, and Dr. Spenser, in reply, stated that this fact was probably due to the changing of more starch into maltose by the action of heat.

DR. WALTER LINCOLN reported a case with exhibition of specimen illustrating a total occlusion of the Fallopian tubes as a result of salpingitis (*see p. 268*).

DR. N. STONE SCOTT, next on the regular program, spoke on the subject of "X-Ray Diagnosis of Hip-Joint Disease," illustrating his subject by X-ray photographs.

DR. L. B. TUCKERMAN reported "Two Cases of Venesection" which he had performed, and stated that he believed that there were still certain cases where the same good results could not be obtained by any other method. The first case reported was that of a man suffering from the early symptoms of pneumonia—chill, cough, pain in side, temperature 103 degrees, respiration 32, and with prune-juice sputa. After drawing six ounces of blood, the pulse dropped from 150 to 120, the temperature subsided, and a speedy recovery followed. The second case was that of a woman showing beginning signs of paralysis. In this case ten ounces of blood was withdrawn with excellent results.

DR. C. A. HAMANN presented several anatomical specimens, one being that of a stomach filled with hay eaten by a woman who was insane. The stomach was well filled, and the length of the straw swallowed seemed incredible. Another specimen was exhibited in which a Murphy button was retained in the stomach for five months, followed by carcinoma\* at the seat of injury. He also reported a case of a sailor suffering from stricture of the urethra who had been treated by the passage of a tallow candle, a large portion of which had been broken off and was retained in the canal for three weeks. The piece of candle was exhibited.

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*Regular Meeting, March 12, 1897.*

DR. POWELL, chairman of the committee appointed to investigate and report upon the uses of water-gas in other cities, and to advise the action of this society, stated that the substance of the committee's report was embodied in the following resolution:

"*Resolved*, That we, as medical men of Cleveland, are opposed to the introduction of water-gas into this city, which shall contain over 10 per cent of carbon monoxid." The report was accepted by the society and discussion was invited.

DR. SPENZER stated that water-gas contains about 30 per cent of carbon monoxid, and when reduced so that it contains as little as 10 per cent it practically does away with its chief advantages in the way of manufacture. If it can be made to contain not over 10 per cent of this dangerous gas and be mixed with some other gas having a penetrating odor, the dangers to life will be greatly lessened.

DR. W. H. HUMISTON, another member of the committee, said that water-gas was probably five or six times as dangerous to life as common illuminating gas. Four people had been found dead in Troy, N. Y., in a house with no gas pipe connections, where the gas had entered the apartments through sewer and other street connections. He also read from statistical reports which proved without doubt that the manufacture of water-gas is attended by great dangers to life, and that it cannot be distributed to consumers in its ordinary form with any degree of safety.

DR. GEORGE W. CRILE presented a patient on whom he had operated for the removal of an osteo-sarcoma from the roof of the mouth, which required the entire removal of the hard palate. This operation is generally attended by a very abundant hemorrhage and consequent dangers to life. In the present instance the doctor had made use of a special and unique device invented by himself for clamping the carotid arteries, and in order to maintain free respiration had also performed a preliminary tracheotomy. (*For report of this case, see page 264*).

DR. N. STONE SCOTT said that he thought an invention of this kind should not be passed by the society without due notice. The device was unique, and he thought the doctor deserved a great deal of credit for the skilful manner in which he had devised it and put it into practice. He quoted Dr. Wyeth, of New York, as saying that the character of operation the doctor had performed was an exceedingly bloody one.

DR. SHERMAN agreed with Dr. Scott in all that he had said, and stated that post-nasal fibroids cannot be removed under ordinary circumstances with any degree of safety to life. He thought that about eight out of ten had died after such operations.

DR. HOUSE also commended the action and invention of Dr. Crile.

DR. L. B. TUCKERMAN said that he believed the si-

lence that immediately followed Dr. Crile's report was begotten of innate modesty and lack of experience. He believed that the new method of Dr. Crile would be of much service to the profession, and complimented the doctor upon his success.

DR. C. W. SMITH was proud to be a member of a society in which such improvements were brought out by the younger members, and felt that the Cleveland Medical Society as well as Dr. Crile was to be highly congratulated upon this successful venture, and believed that the new method exhibited would take the place of all ligations for temporary use.

In closing the discussion, Dr. Crile stated that he had been led up to this operation by a series of experiments which he had performed upon dogs, and that he had found that arteries were much less liable to internal injury than he had supposed. In the work upon dogs he had found that clamping an artery with an ordinary forceps did no special damage, and that the circulation was immediately resumed upon its removal.

DR. H. H. POWELL, first on the regular program of the evening, spoke upon the subject, "The Management of the Most Common Varieties of Difficult Labor." He stated that this most extraordinary subject had been formulated without much previous thought, and that the extent of subject matter which it would seem to imply for one paper would be quite remarkable, and that if time were more plenty he would spend a portion of it in making an apology, but as the time was limited, would begin by making a few suggestions regarding posture. "I have aided men," he said, "who might have done as well by themselves if they had only taken the precaution to place their patients in a proper position." Many slight errors in the position of the child may be rectified or made less troublesome by changing the posture of the patient. It is well before making a difficult examination or manipulation, to have the patient on a table at the side of or over the bed, high enough for the operator to stand erect and have a comfortable position for himself. It will be found in practice that this mode is much more satisfactory and leads to better results. It is often an advantage to place the patient in the Trendelenburg position. In such a position chloroform may be given freely, and for many reasons it is believed that this position will be used more frequently in our hospitals in future than it has been in the past. The position may be assumed, with considerable advantage, by placing a chair in the bed with the back under the patient's thighs and building the bed so that it will incline from the chair downward toward the head.

Many difficulties in delivery have their origin in a faulty dilatation of the os, and many children are still-born as a result. If more time were taken for a thorough dilatation of the neck of the womb before making an attempt at delivery, far better results would be derived. One of the common difficulties experienced in delivering a child, after turning, is due to the faulty dilatation before mentioned. As the body passes downward the chin is caught by the undilated os, the head is extended, and delivery is rendered impossible, or sufficiently difficult to bring a great strain upon the neck of the child if force is used. To obviate this difficulty little force should be used at all times, and a constant suprapubic pressure should be made upon the head of the child to hold it in a flexed position with the chin upon the breast.

One might also talk for a long time upon the subject of faulty traction, as deaths have often resulted therefrom. One should constantly bear in mind the line of the pelvic axis and apply traction accordingly in all cases. When the obstruction is at the brim of the pelvis, traction should be made downward and backward, and as advancement is made in the downward motion the line of traction is made more anteriorly, and so on, to correspond with the natural curve of the pelvic axis. In delivering by the breech, one of the difficulties sometimes encountered is the catching of the child's buttock above the pubic arch of the mother if the posterior limb of the child is brought down first. It is well, therefore, to bring down the anterior limb and avoid all possible danger of this complication. Delays and dangers may be the result of any misguided force in traction, made either with or without the use of forceps.

DR. H. J. LEE, next on the program, read a paper upon the subject, "Indications for the Use of Forceps," and quite an extensive discussion of the difficulties arising in obstetric practice followed.

DR. F. S. CLARK said that he was glad to know that the essayists placed so much stress upon the value of life as applied to the child, and presented a valuable report of statistics gathered from European sources, showing the exceeding mortality now prevalent.

DR. R. E. SKEEL stated that the head often fails to enter the pelvic brim from faulty position, and that a small force properly applied will accomplish more than much force ill-directed. He believed that it was good practice, under certain conditions, to incise the cervix when dilatation is impossible. This may be done in certain directions and thus avoid deep and dangerous lacerations, and aid in a more rapid delivery of the child.



He considered it dangerous and bad practice to make use of the forceps during a secondary inertia, as delivery at this time is liable to be followed by an uncontrollable hemorrhage.

DR. FRIEDMANN considered Dr. Lee's paper a good one. "In ordinary cases of labor the question is often asked, 'How long shall we wait before forceps are indicated, when the head is resting upon the perineum?' Doctors say, 'one or two hours.' I have had little trouble or resulting danger to the perineum from the use of forceps in this condition, and great relief is afforded to the mother by such active assistance."

DR. POWELL stated that opium and nourishment often assisted patients to recover force, and that uterine contractions would often come on as a result of this treatment.

"In making dilatation of the os where force is to be used I prefer the use of the hand, and have dilated the opening in thirty minutes from finger size to sufficient proportions for making delivery. Of course, some judgment should be used as to the size of the hand applied, one the size of the hand of Providence being contra-indicated. Careful pelvimetry should be made in all cases, and previous care should be taken to determine whether the pelvis of the mother is normal or otherwise, or whether the head of the child is hydrocephalic, etc. The finger must tell us what the pelvimeter fails to do. Early diagnosis often saves the lives of both women and children. If the head advances and recedes in the canal with the contractions and relaxations, we may be sure that there is no impaction.

DR. LEE remarked that in case the head was arrested at the pelvic brim a special effort should be made to find out the reasons therefor. He was much interested in the remarks of Dr. Skeel, and thought that his points were well taken.

DR. M. ROSENWASSER read a "Report of an Operation for Extra-Uterine Pregnancy Three Weeks after Spurious Labor at Full Term," and DR. N. STONE SCOTT exhibited an anomaly in the anatomy of the appendix.

Owing to the lateness of the hour the remainder of the program was postponed until the next meeting, including the discussion of Dr. Rosenwasser's valuable report.

C. W. S.

## Notes and Comments.

**First Annual Report of the State Board of Medical Registration and Examination.** The first annual report of the board covers the time from its organization, March 24, 1896, to January 1, 1897. It shows that 6,701 certificates have been issued to physicians entitled by graduation, and 119 who applied on the same basis and were refused. Under the ten years' practice clause, 665 have received certificates, while 174 applicants of this kind have been rejected. Thus, 7,366 practitioners were granted certificates, 756 being in Cuyahoga County, and the public was deprived of the services of 283 individuals anxious to be considered doctors. Of 11 applicants examined by the board, 3 were rejected.

The probate judges have issued certificates to 242 midwives, and the board, after examination, granted certificates to 3 more.

Thirty-eight thousand four hundred eighty-six dollars and six cents was received in fees—no small tax upon the profession of the State, and of this \$16,202.92 was expended.

**Marine Hospital News.** On the 12th of March, Past-Assistant Surgeon R. M. Woodward left, going to the Reedy Island Quarantine Station, in the Delaware River, forty miles below Philadelphia. On the same day Surgeon D. A. Carmichael, who was formerly in charge of the United States Marine Hospital at Vineyard Haven, Mass., took charge of the hospital here. Drs. Bahrenberg and Griffiths will be retained as internes. The hospital is receiving a thorough overhauling. New hardwood floors are being laid throughout the second and third floors. The old partitions between the wards are being removed, thus giving six large, light wards. Much plastering and kal-somining are also being done on the different floors.

**Dr. Woodward's valuable services** in this city and the high estimation in which he is held were recognized in the following resolutions, adopted by the Board of Directors of the Chamber of Commerce at a meeting held on March 9th:

"The Board of Directors of the Cleveland Chamber of Commerce learns that Dr. R. M. Woodward, who for the past two years has been connected with the Marine Hospital Service of this city, has been transferred to another station.

"His services while in Cleveland have been so valuable to the institution with which he has been connected, and as a citizen and a man he has made for himself so large a circle of friends not only among the members of this board but in the chamber at large, that his removal from Cleveland cannot but be esteemed a loss by all who know him and his work; therefore, be it

"*Resolved*, That we sincerely regret the removal from Cleveland of Dr. Woodward; that we extend to him our best wishes for his welfare in

the new field to which he has been called, and that, as an expression of our appreciation of his services and our thanks for his instructive addresses delivered before the Chamber of Commerce, this resolution be spread upon the record of this meeting."

**A Disciple of Loissette.** It is a good thing to remember the right word at the right time, but it is not every one who does it by such a curious succession of ideas as the man who dashed into a Western drug store, and accosted the clerk with:

"Say—I want some medicine, and I want it quick, too! But for the life of me I can't tell what the name is!"

"Well, how on earth do you expect to get it, then?" demanded the disgusted clerk. "I can't help you!"

"Yes, you can, too!" said the would-be customer, promptly. "What's the name of that bay on the lower part of this lake—eh?"

"Do you mean Put-in-Bay?"

"That's it! That's it! And what's the name of the old fellow that put in there once, you know? Celebrated character, you know?"

"Are you talking about Commodore Perry?"

"Good! I've got it! I've got it!" shouted the customer. "That's what I want. Gimme ten cents' worth of paregoric!"—*Harper's Round Table.*

**The Mosgrove Law in Cleveland.** The cases of physicians charged with violating the Mosgrove law in Cleveland are not to be taken up till the April term of court. The case of "Dr." Hosea W. Libbey will be taken up first and will probably be carried to the Supreme Court before the "Dr." can be convinced that Ohio finally has a medical registration law that can and will be enforced.

**Dr. E. G. Carpenter** has been recently appointed one of the trustees of the Massillon Insane Asylum.

**Dr. E. D. Brant** has been appointed city physician of Canton.

**Prof. Calvin S. Case**, of Chicago, gave a course of six lectures and demonstrations on orthodontia before the students of W. R. U. Dental Department, early in March.

**Dr. Martin Friedrich** has returned from a prolonged trip in Europe and has opened an office in the Osborn.

**Dr. Nicholas Senn** has been enjoying a hunting trip in Texas.

**Another Humiliation for Lodge Doctors.** A result which might have been predicted when members of the medical profession forget professional dignity and resort to contract work and underbidding to secure patronage, has

transpired in England. According to *Medical News*, "a strike of doctors at Yarmouth has just failed. The physicians in the town demanded higher fees from the benefit associations than had been paid, and a limitation of the classes of patients to be attended at club rates. The associations combined, and finding that they provided \$10,000 worth of business a year, established a central office of their own, hiring a doctor from out of town to manage it.

**Dr. Robert Bailey** has been nominated for councilman from the second district, on the Republican ticket. If elected, Dr. Bailey will make an honest and efficient official.

**Dr. L. B. Lougee**, formerly of this city, has removed to Attica, N. Y.

**Dr. Wm. H. Nevison** spent two weeks in Lakewood, N. J., the fore part of March.

**Dr. S. P. Wise**, of Millersburg, retired from the State Board of Health by expiration of his term on December 13th. He was first appointed by Governor Foraker in 1886, and reappointed by Governor Campbell in 1889. He served seven years, being twice elected president of the board.

**Proposed Legislation in Colorado.** A new bill, or rather an amended bill, says the *Denver Medical Times*, to regulate the practice of medicine in Colorado, will be introduced in the legislature in a few days by the legislative committee of the Colorado State Medical Society.

The main features of the new bill will be the doing away of the ten-year clause and the requiring of all physicians to be graduates of reputable medical colleges before they can be admitted to the board for examination for a license to practice medicine in that State.

**Experiments in Hypnotism** recently made by the most famous French hypnotists show the singular fact that in spite of the supposed inferiority of woman to man, in point of nervous and physical organization, it is a third easier to place a man under the influence of hypnotism than it is to induce a woman to accept hypnotic suggestion.

**The Eye Examined with the Roentgen Ray.** At the meeting of the Section on Ophthalmology, of the College of Physicians, Philadelphia, held on February 16, 1897, Dr. de Schweinitz described a case in which a piece of steel imbedded in the ciliary body was located by means of Roentgen's rays. Extraction with the electro-magnet was performed after two similar operative procedures without the use of the rays had been unsuccessful. In spite

of the repeated traumatisms the patient recovered with good vision. The foreign body had remained in the ciliary body for twelve days and had caused cyclitis. The radiograph clearly indicated the position of the foreign body, which had been unrecognizable by ophthalmoscopic examination owing to the hazy condition of the media.

In the discussion it was stated that this case was the fourth in Philadelphia, and that those of Williams of Boston and Clark of Columbus were the only others that had thus far appeared in print. The condition of the eye indicated that still further improvement of vision was to be expected. It has been thus positively demonstrated that the Roentgen ray will not only penetrate the coats of the eye and the media, but also the bones of the orbit, and that both the presence and the approximate location of a piece of metal can be positively diagnosticated.

Dr. Leonard had recently demonstrated the presence of two No. 6 bird-shot in the orbit and one in the pharynx in the same patient. The Crooke's tube was held on one side of the head and the plate fastened on the opposite temple.

**Sawdust a Nuisance.** The Tennessee State Board of Health is receiving numerous complaints of pollution of the streams by sawdust from mills located on their banks. Cattle have been injured by drinking the water, and in some sections malarial epidemics have appeared where none were known before, undoubtedly caused by enormous quantities of rotting sawdust. The remedy proposed by the board is to compel the mills to burn the sawdust as soon as it is made.

**Dr. C. B. Finefrock**, of Norwalk, O., has been appointed Assistant Physician at the Cleveland State Hospital.

**Bleeding Still Practised.** Medical Student: "They don't bleed people nowadays as they did forty years ago, do they, Professor?" Professor: "Not with the lancet."

**Nicola Tesla**, the famous electrician, has made such progress in his work that he says electricity will soon be transmitted from station to station without the employment of connecting wires.

**Prevention of Hereditary Disease.** It is said that a score or more of unmarried women in the city of New York have formed a society for the prevention of hereditary diseases. The members take a solemn oath not to marry any man whose family history has any taint of alcoholism, consumption or insanity. There are some more diseases which the ladies would do well to taboo. Before

the man goes after the marriage license let him bring a clean bill of health from the family physician.

**Dr. Lillian G. Towslee**, of Cleveland, has been chosen to conduct a department of gynecology in the *Woman's Medical Journal*, of Toledo. Commenting thereon, the *Journal* says: "That it will be a success all who are fortunate enough to know of Dr. Towslee and her work are sure, for she has been one of the successes in her profession in a city which has set a high standing in the profession." This is every word true. The *Woman's Medical Journal* is to be congratulated.

**An "Expert's" Knowledge of the Literature.** What seems a very strange interpretation of "law" appears in an occurrence which *The New York Medical Journal* relates. At a recent trial in that city a medical "expert" was examined in regard to certain points in neurology. In the cross-examination he was asked if he recognized a particular book as authority in the matter, and the question was repeated in regard to another book, and then another. His answers were to the effect that he was familiar with all the books mentioned, and that they were authorities on the matters alluded to. The medical witness was then allowed to leave the stand, and the lawyer's clerk was sworn, who testified that the titles of the works in question were fictitious, having been concocted in the law office to which he was attached.

**Medical Practice Law Defective.** A recent court decision in Pennsylvania (*Va. Med. Jour.*) directs attention to the defect in some of its medical practice acts in dealing with the faith cure. A faith-curist arrested at Bellefonte, at the instigation of the county medical society for violation of the medical practice act, set up a defense that there is no law requiring the registration of those practising the faith cure, the medical practice act having relation only to physicians who practise medicine and surgery. The claim was made that the faith cure is purely a form of religious worship, and according to the constitution of the State and of the United States no one has any right to hinder or interfere with such. The justice acknowledged that he could not bind the "doctor" over to a higher court.

**Thorwaldsen's Statue of Christ.** A copy of the great Dane's masterpiece, executed by Professor Stein, of Copenhagen, has been presented to Johns Hopkins Hospital by Mr. William Walter Spence, of Baltimore. The *Bulletin* of the hospital for January contains a full-page engraving of the statue as it stands in the rotunda of the Administration Building.

**Anatomical Material in Kansas.** As yet Kansas has no legal provision for allowing medical colleges to claim anatomical material, but a bill has been recently introduced into the legislature of that State looking to that end. It is much like the Ohio law, which allows deceased criminals and paupers unclaimed by friends to be turned over to the medical colleges. However, section 5 of the bill contains a provision which it would have been as well to omit: "If the deceased person, during his last sickness, of his own accord requests to be buried, or if any person claiming to be and satisfying the proper authorities that he is a personal friend or of kindred to the deceased, shall at any time ask to have the body buried, the body shall not be surrendered, but buried in the usual manner."

We have seen instances where friends of the deceased, who did not think enough of the pauper while living to provide for his wants, and were not willing when he was dead to bear the expense of burial, were very officious in preventing the body from being used for anatomical purposes, and even raised noisy objections to an autopsy. Again, a meddlesome attendant, acquaintance, or even a visitor may easily suggest to the declining pauper or criminal that he put in a request for a burial, and so prevent the doctors from dissecting him. The profession in Kansas would best look to it well, or they will not have a very desirable piece of legislation, after all. The medical staffs of hospitals and infirmaries, medical colleges and the profession, not forgetting the students who are endeavoring to prepare themselves to enter the profession, have some rights worth considering—more rights than have ever been accorded under the law.

**Water in Abundance** is one of the essentials to the proper performance of all physiological functions. Most persons unquestionably drink too little of it, and the origin or aggravation of many ailments is due to an insufficient supply. Excellent advice is found in an article in *Harper's Bazar*, which is to be commended in every point excepting that of not allowing water during meals. There seems to be no reason for withholding it then, provided it be of proper temperature and be not allowed to supplant the process of mastication, to aid in swallowing solid food. The article says:

The habit of drinking daily a quantity of water is one that is valuable in many ways. Its importance is seldom sufficiently emphasized. It is not enough that the child should take an occasional glass of water, or that the babe should be given a spoonful as a rarity. But the habit of water-drinking is essential to the well-being of every child. Most children will occasionally ask for wa-

ter at meals, or will take a swallow of ice-water when they see others drinking, or will enjoy water with lemon or fruit, or jelly or sugar, or flavored with tea or coffee; but water pure and simple it seldom occurs to a child to demand, or to a mother to offer, although of all foods this one is the most important, and no other contributes so directly to the health and growth of the child. The tiniest baby should be given a teaspoonful of water many times during the day; and if at night it takes water from a nursing-bottle, it will require during several hours no other nourishment. A child two years old may with advantage drink at least a pint of water every twenty-four hours, and a child from three to four years old will not infrequently consume a quart of water in the same time.

All water fed to a child should have been boiled, and must be kept in a bottle or carafe that can be closely stoppered. It should neither be warmed nor cooled, but should be given to the child at ordinary temperature as it stands in the living-room. It should always stand within sight of the infant, and within reach of an older child. Where it is necessary to go down-stairs or into another part of the house in order to obtain a drink for the child, it usually has no drink at all except at such times as its thirst becomes intense. It is not necessary or advisable to give water to a child during meals, but at other times it may safely be allowed to drink as often and as much as it will. It may even be encouraged to increase the amount, if the water that is used has first been boiled and is of the proper temperature. We cannot of course force a child to drink, nor is it pleasant to over-urge such a necessary operation. But by having water always at hand we may make drinking easy, and by providing a pretty cup, or making some merry play, we can go farther and make the drinking of plain water really attractive until the habit is firmly fixed, when it will regulate itself.

**Trilbyism and Degeneracy.** The connection of the celebrated Trilby with a now celebrated dinner which shocked New York is a climax and not an accident, says *The World*, New York. It has come as the culmination of a long series of symptoms indicating the spread of what for lack of a better name may be called Trilbyism.

It is argued that science and art know no shame and can afford to recognize none in their pursuit of truth. But whatever is to be said on that subject, it has nothing to do with Trilbyism in its popular sense.

Its worst outbreak among English-speaking people since the time of Charles II. followed the publication of Swinburne's earlier volumes of verse. Swinburne got his models where Charles II. as an exile got the morals which



corrupted England for a century—in the slums of Paris. The French poet whom Swinburne most greatly admired and imitated was a thief and a jailbird, of whom and his inspirations to English versifiers it was written:

The Gallic muse of evil fame  
Whom Villon found in vile purlieus  
Now flaunts in English all her shame.  
The Gallic muse,  
Where'er she be, will never lose  
Her pavement gait or her fit name.

From poetry and art the morals of the Latin Quarter gradually worked their way into English prose literature, until the genius of Du Maurier was able to make the Trilbyism which he thought laudable for artistic purposes seem to many of his readers excusable if not laudable for all others.

So it happens in New York, to the greatness of which the whole world contributes, that when a Trilby is to be found she is not the Du Maurier article, but an Oriental dancer on the same moral and intellectual plane as those who danced before Rameses in the neighborhood of three thousand years ago. And it is directly to this moral and intellectual level that Trilbyism must lead degenerates who, having neither art nor science to excuse a lack of shame, become shameless merely because of their degeneracy.—*Public Health Journal*.

**Heredity of Consumption as Affecting Life Insurance.** Since belief in the hereditary nature of tuberculosis is giving way, if it has not yet entirely given way to belief in its communicability, what will be the effect upon the work of the examiner for life insurance? The blanks of the companies still require all the information about consumption in the family; but it is quite possible when the preventability of the disease becomes thoroughly understood that some applicants may be deemed eligible whose family history would formerly have debarred them.

**Diphtheria Antitoxin in Eighteen Cases.** "During the past year," writes R. M. O'Ferrall, M. D., Piqua, O., "I have used the anti-diphtheritic serum in eighteen cases of diphtheria, all of which recovered. In two cases I gave a second injection. The larynx was involved in one case which I saw on the third day. In two cases the membrane had extended to the nose before I saw the patients. In no case did any extension of the membrane occur after the use of the antitoxin. In no case did the kidneys become affected or albuminuria occur. I used the serum on the first day of the disease in four cases; on the second day in eight, and on the third day in six. Three of my cases were adults, two were under twenty months and the others from sixteen years down."





CHARLES FREDERICK HERMANN WUILLGOHS, M. D.



### **Original Articles.**

#### **ADDRESS BEFORE THE GRADUATES OF THE CLEVELAND COLLEGE OF PHYSICIANS AND SURGEONS.\***

[Dr. Mathews used no manuscript, and we regret being able to present only a very imperfect report of his eloquent address.—Ed.]

BY PROF. JOSEPH M. MATHEWS, M. D., LOUISVILLE, KY.

LADIES AND GENTLEMEN:

I am very proud to have been invited to come here and deliver an address before these graduates, and it did not require a moment's thought on my part to accept it; therefore I left my own school in session, and I bring greetings from the Kentucky School of Medicine. I will not attempt any scientific discourse to-night, for I am sure in the past six or eight months you have had enough such from your distinguished faculty. I am sure that, if I were capable of giving you a talk on science, on this night your mind would be wandering from me and my subject. I never attend commencement exercises that my own mind does not wander back many years—I will not tell you how many—and I fully realize how you feel to-night and will not discuss science further.

You are now going home. I know what feeling you have. Your coming is anxiously awaited; the horse, the very cows will be glad to see you. The little cricket on the hearth will chirp more merrily at the thought of your coming home. The mother, and the sweetheart you have

\*Delivered at the Commencement, March 17, 1897.

left behind, who have discussed you so many days in your absence, will await and welcome you home. Home! The word touches every chord of the human heart with its angelic fingers. What tender associations are linked with home. The little wife, if you have any, she also will be there. I sometimes think that all the honor and worth that there is in man is due to the influence of some woman at home who has had much to do toward molding his character, and to-night, let me say, give her full praise. While you have been here hard at study, she has been trying her very best to aid you, if not in a financial way, by her spirit and her love. There are others who have left behind sweethearts who have promised to wait for them, and notwithstanding the glad smiles that have been bestowed upon them by others, they have proven themselves true to the girl they left behind.

You are now entering the medical profession, and never in the history of medicine has the medical student realized the importance of the profession as much as now. The medical student of to-day has more hard work before him, and is certainly more thorough than the graduates of former years, because the medicine of years ago was not an exact science. That cannot be said to-day, as we have a foundation as solid as a rock. The principles that we teach to-day are strictly those of science, and anything and everything pertaining to the profession is in due course brought before the student. The last four or five years have certainly demonstrated this fact.

There is one thing I would ask of you; don't think you know it all, or that you are greater than any one else. Last year we had a young man attending our college who had a negro servant. Now this old negro seemed to think his master knew more than any one else, and was constantly talking about him, and every one became disgusted with hearing about the young man so much. One day the old negro was approached on the street by another negro, who said to him, "Uncle Isaac, do you think your Mas' Tom is the greatest man in the world?" And Uncle Isaac replied, "Yes, I think he is the greatest man in the world." "Well, now, do you think your Mas' Tom is as great a man as Gen'l Grant, foh instance?" And Uncle Isaac replied, "W-e-l-l, Gen'l Grant was a

great man, but I think my Mas' Tom he's greater." "Well, now, Uncle Isaac, do you really think your Mas' Tom is as great as Abe Lincoln?" And Uncle Isaac scratched his head and finally said, "W-e-l-l, Abe Lincoln was a mighty great man, but I really do think my Mas' Tom is greater." "Well, now, Uncle Isaac, do you think your Mas'r is a greater man dan de Lawd?" And Uncle Isaac studied awhile, and then said, "Of cose de Lawd is ve'y great, but you must recollect that my Mas' Tom is young yet." Do not know *too* much. When you are getting up in this noble profession you will think of what I said and fully realize what I mean when I say, Don't be too great.

There are several more things I desire to say, if I can, and that is, when you are located—and I suppose many of you have selected your place long ere this, and I hope it is in your own home town—I hope your location will be permanent. Don't try to select a place where there are no other doctors. Great Scott! that is just the place you ought to live in, where there *are* other doctors, and profit by the experience of those who have *had* experience. Now another thing I wish to speak of. So many doctors after they have lived in a place become tired of it in a very short time and make a change, after having made friends and accepted fees from them. I would not break the ties between the friends I have made for all the money I would get out of fees for five or ten years to come. Don't change from one place to another.

And when you enter the profession, don't start out with the idea that you are not entitled to the fee that the other doctors get, for you are. Make a price and stick to it. A short time ago I overheard a conversation between a doctor and a patient. The patient came to pay his bill and the doctor charged him \$3. The patient did not see why he charged him \$3 when he had only been charged \$2 by other doctors, and he remarked to the doctor about it, and the doctor told him that he supposed the other doctor knew how much his services were worth, and that he knew how much his own services were worth. A short time ago I was sitting in the private office of a doctor when a lady came in to pay her bill, and she asked the doctor how much it was, and he told her it was \$90; and

she said, "Well, doctor—" and he interrupted her by saying, "Well, we will not have any words about it, and I will make it \$50. But she said, "Doctor—" and he again interrupted her by saying, "There will be no dispute over it, and as we are the best of friends I will make it \$30." "But, doctor, if you will permit me—I was going to say that I thought your first bill was too small." Now he could have gotten \$90 just as well as \$30, for it was well worth it, as the lady had been sick with typhoid fever for a long time. Don't go into the profession with such an idea as that.

There is another thing I wish to impress upon your mind, and that is, attend medical societies. I have often heard physicians remark when they were asked to attend a medical society, that they were too busy and that it cost too much. Now, my dear friends, let me say to you, never offer that for an excuse. Attend medical societies, as they are certainly a great benefit to you, not only a medical society but any other society, for you can always learn something that will be a benefit both to yourself and patients, and I think no better investment could be made than by attending a medical society, and especially the American Medical Association.

A few years ago a medical journal opened its columns to the medical profession to report unsuccessful cases, and the editor of the paper kept these columns open for three months, and not a single report of a case that was unsuccessful; and the editor remarked: "What a wonderful profession we have in the United States! all their cases are successful." Now, ladies and gentlemen, I beseech of you never to hesitate to report an unsuccessful case to the journals and the societies, and in this way you can learn more than by a dozen cases that were successful.

Another thing I would like to warn you about, and that is, to guard well the secrets of your patients. Never betray anything that is told you, and you will soon be looked upon as a great help and comfort to those in distress.

Now, I will tell you a little instance about remembering names. It is a very important aid to be able to recall the names of your patients. We have down in Kentucky an old distinguished professor who could never remember

a name in his life, but regardless of that the boys are all devoted to him; and so one day they met together and it was suggested that they ask the professor to deliver a lecture, and they selected his subject, which was, "Some of the distinguished men of the world."

[Here the stenographer seems to have become absorbed in listening to Dr. Mathews' inimitable imitation of the old professor's oration upon distinguished men—whose names he could not remember!—and in listening has neglected to write a word. We shall have to leave it to the reader's imagination.—Ed.]

Remembering faces is also another important thing. A gentleman was going down South, and to be certain that he would be put off at a certain place—Tyron was the place he was going—he called the porter and told him to arouse him at three o'clock; and he told him that he was very hard to awaken, but that he should insist on his getting up,—that he was *very* hard to rouse from a deep slumber, but by all means to see that he was put off at Tyron;—probably he would use some words that were not exactly correct, but regardless of that he should put him off; and to impress it on the porter's mind he gave him a silver dollar. So he retired and toward morning he woke up and discovered that he had passed Tyron, and of course was very angry and went on a hunt for the porter, and found him in the smoker with his head all bandaged up, and asked him why he did not put him off at Tyron. The porter looked at him and said, "You never told me to put you off at Tyron." "Yes, I did," replied the man. "Didn't I give you a dollar to put me off at Tyron?" And the porter looked at him surprised, and said, "Was you the man that told me to put you off at Tyron?" The man replied that he was, and the porter said, "Great Scott! I wonder who that man was I put off at Tyron?" That shows the importance of remembering faces.

There is one other point I desire to bring before you, and that is the subject of consultations. There seems to be an impression with some doctors that they do not desire to consult with other doctors. Ah, my friends, some night when you have a critical case and realize that life and death depend upon you, then you will wish you had some one else to help shoulder the responsibility; and when you go out on the porch to cool your fevered brow, the



sight of another doctor's buggy coming over the hill will be the most welcome sight you ever saw. I wish to say to you to-night that in order to do justice to yourself and your patient you should have the best counsel that can be got; and I have also to say to you something perhaps you cannot understand, unless you have been in practice,—when you go to a consultation let it be an honest one, and if you find you cannot be of help to the patient, or that some other plan of treatment would be better, say so, and tell them that you believe a change would be advisable.

You will hear a great deal about the code of ethics, and of its importance as a set of laws to govern and guide the profession in their dealings with one another and with their patients. But I tell you that if every printed or written copy of the code in existence were lost or burned, there would still exist in the heart and mind of every honorable and right-thinking gentleman in the profession principles all-sufficient to govern and to guide him under any and all circumstances of professional life.

Among the numerous trials you will have to meet, one of the most aggravating will be quackery. After all your years of hard study and preparation, and with a consciousness of your knowledge and ability to cope with disease in a scientific manner, it will sorely try your patience when people pass you by and visit some long-haired, ignorant mountebank who has come to town to cry the virtues of some worthless cure-all. And the worst of it is, you will see the people believe in him and pay down their good dollars for his good-for-nothing concoctions. But in spite of all this you must go calmly and resolutely on your way. You must try and forget yourself and your injured feelings, and still labor to protect the people against injurious usages and conditions. This is the proud record of the medical profession from time immemorial.

George Eliot says, "In the sick room there is a duty about which all creeds and all philosophies are at one. To divine the want that can find no utterance beyond a feeble motion of the hand or a beseeching glance of the eye, these are offices that demand no weighing of consequences; here the conscious, moral relation of man to

man is reduced to its utmost clearness and simplicity. This serene freedom from opinion lies in all acts of mercy, and is one source of that calm which is often felt by the watcher in the sick room." This is the field of the real hero, who must banish all vain antipathy, and, as Pope says, "Do good by stealth and blush to find it fame."

Herbert Spencer has remarked, "The brain is no exception to the organic law that use causes decay. The body undergoes constant change. The bloom upon the maiden's cheek is less to-day than yesterday; her step is not so elastic, or her eye so bright as a month ago. Every moment shows a constant change. If this is true of the body, so it is of the mind. Its substance is consumed by every thought, by every action of the will, by every sound that is heard, by every object that is seen, by every substance that is touched, by every odor that is smelled, by every sensation of pleasure or pain; and so each instant of our lives witnesses the decay of some portion of its mass."

It was the late Thomas Carlyle who said that if a person would, every day, look at a beautiful picture, examine a piece of exquisite statuary, listen to a sweet song and absorb an inspiring melody, he would be a better man.

There is art in medicine, flowers, books and music; music charms the savage. The mother who sings her babe to rest with a lullaby may be giving an inspiration that will last all its life long. The lover plays his lute beneath the window of the woman he loves. The soldier marches to battle and to death at the sound of martial music. The deep-toned notes of the organ in the great cathedral brings us nearer to God. Our bodies are laid to rest in the silent grave to the music of the solemn dirge. May it not be that they will rise again in response to the music of angel voices and the harps of many strings.

## PRESIDENT'S ADDRESS.\*

BY WILLIAM G. WILLIAMS, D.D.,

Acting President of Ohio Wesleyan University.

Perhaps not any one, perhaps not many, know why the Ohio Wesleyan University, in the person of its representative, appears now for the first time on the platform of the Cleveland College of Physicians and Surgeons. It is not because the university has now first come into the world. The university is fifty years old, and has become securely established and widely known as an educational power. Its students number 1,300 annually and aggregate 20,000 since the beginning; and the alumni count 3,000, and are found almost everywhere; they count a hundred in this city. But while a reputable and prosperous school, the Ohio Wesleyan, though incorporated as a university, has thus far been doing chiefly the work pertaining to a mere college, a college of "liberal arts," with one faculty, and not the work of a university with many separate faculties for the various departments of human learning. The university ideal of the founders of the Ohio Wesleyan has not yet been realized,—the ideal of a university where students may find instruction in whatever line of study is admired or preferred. This ideal implies the organization of distinct faculties of arts, of science, of theology, of law and of medicine. This ideal is reached at many of the long-established centers in the old world, and is partly accomplished at a few of the richly-endowed centers in this country. The Ohio Wesleyan University purposes all this, as fast as the means and opportunities are offered; and it will some day realize its purpose; though it may be twice fifty years old before that good time comes.

In a denominational university we should naturally expect that the school of theology would be the first of the professional schools to be contemplated and established. A theological department at Delaware has, in fact, long been anticipated and desired; and I now know two generous men who each contemplate a foundation there for such a school; and I think it will be accomplished within the next decennium.

\*At the Commencement of the Cleveland College of Physicians and Surgeons, March 17, 1897.

But, singular as it may seem, it was not a theological, but a medical department that was the first one seriously considered by the authorities of the university, more than forty years ago; a promising beginning for a medical college in a leading city of Ohio was offered to our trustees, but was declined on the ground that it was not large enough to justify such a commitment of the university; and similar offers have twice since been made from other localities, and declined for similar reasons. Yet the university, during all these years, has purposed some day to establish a medical department, as essential to its ideal of a well-rounded educational scheme; and with this intent the university secured, more than a generation ago, amendments to its charter enabling the board to locate their professional schools in whatever other places in the State they deemed best.

Last year the trustees felt that the long-awaited opportunity had come. Some far-seeing liberal citizen of Cleveland, friend to the university, desired that the university should establish its medical department in this city. No location could be better. Certainly a medical college, to be a success, must be located in a large city where many able physicians and surgeons can be secured for the faculty, where all forms of diseases and the most skillful treatment can be illustrated, where hospitals amply furnished are open for clinical instruction, and where all material appliances can be easily obtained. Such a foundation already exists here. The Cleveland College of Physicians and Surgeons has for thirty years had an honorable and successful record. It was organized and maintained by members of the profession, who wished to make Cleveland a center for the study of medicine. The college has had large annual classes, and has graduated nearly a thousand of students, who are now in reputable practice all over the country. The college had a large hospital under its exclusive control, and a large dispensary where it treated and prescribed for three thousand patients yearly. But this college had never had an endowment, not even a suitable building. It had achieved all these continued and admirable results with only the building and laboratories, and appliances which the faculty had furnished out of their own personal contributions.

But beyond this the college could not go; it certainly could not grow without help from outside. A wide future was before the college if means be available for proper improvements of the situation. Under those circumstances these broad-minded and generous citizens of Cleveland felt that they could and should come to the help of this struggling medical college, and at the same time further the interests of the Ohio Wesleyan University, in which they had a denominational concern.

Negotiations were accordingly begun for the union of the two schools, and the terms were accepted by both parties. The result is that the Cleveland College of Physicians and Surgeons, while still retaining its former designation, loses its independent existence and charter and becomes a branch of the Ohio Wesleyan University as its medical department, and subject to its charter and board of trustees.

The union of these large interests meets the wants and hopes of both the university and the medical college. The university has its first professional school born to it, like Minerva from the brain of Jupiter, full-grown, and already known to the world, and reputable. And the medical college which needed help has the aid of a great institution, or one which is fast coming to greatness, extended over it and giving it educational support, and of a growth and strength like that of the present school.

I think the city of Cleveland, already noted for its great university and its colleges and its great scientific schools, and for its great educators, will not be ashamed or unwilling to welcome the Ohio Wesleyan University to a representative place among its educational forces, and to a share in the benefaction, which, in the good times coming, will flow from the coffers of grand givers.

This arrangement for the union of the Medical College with the University has led to the transfer to the University of a valuable lot, or ground of ample size and centrally located about three squares from where we are assembled, and to the subscription of a large sum of money with which to erect on this lot a suitable building for the medical school.

May I now, in behalf of the authorities of both the University and of the Medical College, present before this

audience the yet unsatisfied need of the new movement? The conditions, partly written, partly oral, on which the negotiations were to be carried into effect have not yet all been met, although we do not doubt that every promise will be made good. One stipulation was that all the money needed was to come from Cleveland. The lot is in our possession, but not yet crowned with the needed building. For this we need fifty thousand dollars to make this coming year's work of the Medical Department an immediate certainty. We have stipulations and promises as good as subscriptions to the amount of half this sum, and we rely on the enlarged enterprise of our friends, the friends of Cleveland's reputation and of the University, to add what we need. The Medical Department here has no denomination behind it to which it may appeal for help. The self-sacrificing doctors who founded this college thirty-one years ago, and who from their own resources have sustained it, have done so almost entirely by their own personal efforts gratuitous to the public interests of Cleveland. By their contributions to the college they have gotten for themselves neither money nor material benefit, but a good deal of experience and an enlarged opportunity of making benefactions to others, and now all they ask their friends of Cleveland to give them is simply a local habitation worthy of Cleveland's greatness, worthy of their professional standing, worthy of the good work which they have done and hope still to do for mankind. They ask no endorsements, welcome as that would be. The fees of the students will pay the current expenses of the college and help gradually to furnish all the material supplies of library, museums, laboratories, and apparatus that are yet lacking, and then may give a nominal remuneration to the faculty.

For your contributions, citizens of Cleveland, you will have a large and successful medical school, in a central location; and you will make your city yet more favored for the professional opportunities that it offers to the aspirations of ambitious youth. No medical college can offer better inducements to students; and the lengthened course of study now embracing four years, in place of the customary three, or even two, years of old, assures the profession at large that the college will do earnest and

thorough work. The faculty as now organized enroll twenty of the ablest physicians and surgeons of the city and of the neighborhood. The permanent and conservative character of the University Board of Trustees, with whom all appointments here will hereafter rest, assures us of a continuous faculty of able and attractive practitioners and lecturers.

And now to a more pleasant duty. In pursuance of the arrangement which affiliates the Medical College with the University, I have the honor and pleasure, as the representative of the honored Board of Trustees of the Ohio Wesleyan University, to preside at the Commencement exercises. In behalf of the trustees of the University, in behalf of our faculty of fifty professors and teachers, as far as I may assume to represent them, and for myself personally, I am happy to meet and to greet this large and able faculty of the Cleveland medical professors, and to recognize them as members of the University Faculty as our colleagues in one common institution, and as co-workers with us in the great cause of education. We are glad to recognize in them a body of competent and experienced teachers in medicine, to whom we can safely recommend and send our graduates from the academic courses, as well as direct all others seeking the most advanced medical institution, and the most reputable standing thereafter in the profession.

We are glad, too, to count the nine hundred graduates of the Medical College as honorary alumni of the University with which their *Alma Mater* is now identified. They are a large part of the history of this Medical College, and of its present strength; and they will, we trust, prove a column of strength to their adoptive *Alma Mater*. "The Greater University," of which they now constitute an integral part, covets their influence and their assistance in their several fields of labor. I bring these graduates of the Medical College, under its former *régime*, the greetings of the University with its three thousand graduates, seven hundred of whom are also themselves of the same liberal profession. It is not an empty or insignificant compliment that the University pays these graduates in carrying their names to the rolls of the alumni. Next to the intrinsic value of a good education is the

incidental advantages of association with a large and growing body of alumni, ready to accord social and professional recognition to their fellow graduates. A graduate of such a school does not stand alone; there are many whose eyes are on him, who watch for his interests. We shall hope that bonds of genuine sympathy may bind the two groups of alumni together with a common regard for one another and for their *Alma Mater*.

And, finally, I am especially happy that upon the Medical Faculty recommendation of the Senior class, and by the authority of the University Board of Trustees, it devolves upon me to graduate our Medical Class of 1897.

Ladies and gentlemen of the graduating class, my last words shall be words of congratulation to you, whose graduation calls us together to-night; words of rejoicing with you that you have honorably completed your college course of study, and now begin your life career of independent professional studies and work.

I am always interested in young men and women, students preparing themselves for their life work, especially when they have come to this crucial hour. I have seen more than fifty annual classes of graduates go out of our halls, and never have I seen one without a sense of emotion and deep concern for their future. Coming from another department of study and of teaching, I take the liberty to say to you some things that an old teacher may be pardoned in saying to young people who stand at the portal of life, and have their professional character and professional reputation yet to make. Your title and degree of *Doctor*, which your University confers on you to-night, you have honorably earned, but have earned it in less time and with less toil than the candidates in any other of the learned professions. I think your pastors are happy if after twenty years of study and work they are authorized to wear the title of *Doctor*, and some of us are only too sure that we did not deserve it. I take it that you, too, realize that you have only begun, and must needs go on to perfection. And in this effort hereafter each one of you must minister to himself. Henceforth your teachers remit you to yourselves. All that you make of yourselves, all that you accomplish for others, must now be your own work. Your graduation to-night im-



plies that you have the habits and the discipline for attaining eminence in your profession. But your profession is a broad and a growing one, and offers within itself limitless opportunity. A physician as well as a lawyer, or a preacher, who is not a man of continually growing science is at best a routinist; and no man can grow in science within his own profession without knowing not only what lies within his profession but what lies outside of it; he must make excursions into all domains. All knowledge inosculates. The genuine scholar of whatever profession must seek to intermeddle with all knowledge. What glorious examples of such scholars the rolls of your profession and of all professions supply, and they show that the plea of want of leisure for such pursuits is the plea of indolence or of self-deception. There are seven pithy sayings of condensed wisdom that have come down to us from the seven sages of ancient Greece. One of these sayings, the embodied philosophy of Pittacus, was "Know your opportunity." But Paul the Jew said, with a more incisive wisdom than this Greek, "Buy your opportunity." An ordinary lifetime seems short, but it is long enough, set thick enough with opportunities for great achievements by those who will buy their opportunity, or in more familiar words, "redeem the time." This is what our own greatest American philosopher meant, "Take care of the minutes, the hours will take care of themselves." A distinguished bishop, who knew the value of minutes, told me that when Froude's *England* was issuing from the press he read as a matter of side-reading the entire twelve volumes while riding in the street-cars of New York to and from his business office; and that he had learned the German language while making an episcopal tour around the world. I knew him, when we were young teachers together, to be at his Hebrew Bible at four o'clock in the morning.

"Peace hath her victories no less than War," said Milton, himself a glorious instance of those undemonstrative victors who conquer mankind. Those victories are the greatest of all, and they can be bought only on Nature's own terms. "The Gods," said another of those Greek sages—"the Gods sell all good things for labor; and nothing is great without sweat." The sweating face

of labor is manly, but the sweating brain of thought is lordly, it conquers and reigns. To faith all things are possible, that is, anything is possible to the man who has convictions. No man need despair. "I and time against any other two," said Hildebrand; "the matter is in me and it shall come out," and the world to this day hears the grand bellowings of Gregory VII., the greatest man in the history of the Roman Church. "Leisure and I have taken leave of one another," said another young man at the age of twenty-three. "I propose to be busy as long as I live." And when John Wesley died, at the age of eighty-eight, he had done more work than any other man in Great Britain, and impressed his will and his ideas on an organization that will live till the judgment.

But I must close. With the ambitions and the purposes that come to young persons at such an hour as this, I am sure that you will not think I have said aught that you disapprove. On the contrary, whatever your honored professors demand of you, whatever the loftiest ideals of manliness demand, you are ready to arrogate as your own. You challenge the strife that shall test and tax your courage and your endurance. To this race for the goal, and the crown at the end of the race, your friends bid you welcome and bid you God-speed.

Whatsoever things are true, whatsoever things are honorable, whatsoever things are just, whatsoever things are pure, whatsoever are lovely, whatsoever things are of good report; if there be any virtue, if there be any praise, may these all be yours through life, and may you be God's.

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### DEAN'S ADDRESS.\*

BY CHARLES B. PARKER, M. D., M. R. C. S. ENG.,

Dean and Professor of Clinical Surgery in the Cleveland College of Physicians and Surgeons.

Perhaps few of those who are gathered here to celebrate these closing exercises fully appreciate the real meaning of this occasion to these young people. If you will reflect a moment, you will remember that four years ago they determined to devote themselves to the study of

\*Delivered at the Annual Commencement Exercises, March 17, 1897.

medicine, and three years ago they entered the medical school. To do so they must have passed a satisfactory entrance examination, or have presented a certificate of having graduated from a high school or college, which means at least four years of previous study. Most of these graduates will devote a further year or more to hospital practice or to postgraduate study, or make a journey to the great medical centers of Europe.

Thus ten years, the best and most productive years of their lives, have been spent in study and in preparation to practise their chosen profession. The length of time thus consumed compares very favorably with that spent in preparation for either of the other learned professions.

The graduate in medicine begins his profession at an age when men in mercantile pursuits are established in business. He cannot employ ordinary business methods. He must not advertise in the daily press, but must patiently await the request for his services.

Nor is the pursuit of his studies without actual dangers. He is subject to blood-poisoning in the dissecting room, in the laboratory, in performing autopsies, in dressing hospital patients. Of the eighteen young men annually entering a large Chicago hospital as internes, three or four each year contract consumption, typhoid fever or some other blood disease, and often have to give up their life's work. And these same dangers are ever present in the routine of practice. The doctor bears no charm against them. He wears no mysterious talisman which wards off disease. He is liable to the same diseases for which dead doctors treated their patients before him. There is not a practising physician in this house who is not frequently exposed to the most dangerous infections. And yet, should the cholera or bubonic plague break out in our city to-morrow, the merchant, the lawyer, the artisan, might flee to a place of safety, but no true physician would desert his post. This is the history of the cholera epidemic in Hamburg. Not only has he not run away from dangers, but witness Dr. Koch, the learned bacteriologist, going to India a few years ago to investigate the true cause of cholera, and now again his government sends him and his fearless associates to make

scientific inquiry into this new outbreak of the bubonic plague. For past experience has taught that with a knowledge gained of the causation, means will be found to destroy it, as vaccination in smallpox, or abate its virulence, as in the case of cholera. This study of the prevention of disease which occupies so large a part of medical energy at the present time, is the crowning glory of the profession. Our position is unique. We are withdrawing our own means of support. I fail to find where the legal profession are devoting much time to preventing litigation or directing us how to keep out of the courts.

For what has been accomplished in this field I need only mention the name of the immortal Jenner, the discoverer of vaccination. The discovery by our own countryman, Dr. Morton, of the anesthetic properties of ether has removed the pains of the operating room and made possible, with asepsis, the triumphs of modern surgery.

Dr. Weir Mitchell, in his poem on the "Birth and Death of Pain," read at the 50th anniversary of the first public administration of ether, poetically says:

Whatever triumphs still shall hold the mind,  
Whatever gifts shall yet enrich mankind,  
Ah! here, no hour shall strike through all the years,  
No hour as sweet, as when hope, doubt and fears  
'Mid deepening stillness, watched one eager brain,  
With God-like will, decree the Death of Pain.  
We took the gift, so humbly, simply given,  
And coldly selfish—left our debt to Heaven.

And what reward for all his labors? Not riches, for the good doctor has no time to get rich, and the rich doctor does not stand first in the estimation of his colleagues or the public. Besides, the average length of the doctor's life is less than that of the lawyer or theologian. Society sees fit to pension the veteran who, while serving his country, was also killing his fellow-man. But no similar recognition is made of the physician's services who, while risking his life in practice, gives a large share of his time to restoring to health, and thus to self-support, those who otherwise would become a burden upon the state.

A few states have established medical colleges of high grade. Nearly every state has, however, an agricultural college, with well-equipped laboratories, supported liberally by the state, to investigate the diseases of plants

and animals and to discover means for their prevention and cure. The central government at Washington has been preparing large quantities of various toxins, notably mallein for tetanus, but this has been duly prepared for animals suffering from lockjaw. You can have it freely for the asking to cure your swine and cattle, but you cannot have a minim for use in man afflicted with the same disease. May the time speedily come when the doctor will receive that consideration from the public to which his qualifications and services entitle him; when the State and the National Government will devote at least as great an amount to the endowment and equipment of medical colleges for the study and prevention of diseases in the human family as now devoted to those of animals.

Young ladies and gentlemen, a word of farewell to you. You know that I voice my own sentiments and those of the entire faculty in wishing you success and happiness in your future career. Be faithful to your work, to yourselves and to your future patients. Beware of the habit of laziness and avoid fatigue. Take care of your bodies. A sick doctor is no doctor at all, and there is nothing left for the doctor broken in health but to give up practice or die. Guard your health by taking your rest and your meals regularly and educate your patients to have consideration for you.

Be painstaking, attentive, kind and gentle, but do not expect the same in return. Republics are notably ungrateful, and you will find that patients are also.

Cultivate some form of recreation or develop some hobby, if need be, not to the neglect of your professional work, but that you may get that diversion of body and mind so essential to the preservation of your health.

Choose a pleasant neighborhood for the field of your labors, and then settle down and stay. A shifting doctor who moves from one place to another is a shiftless doctor.

There is another choice—of that fair one, nearer and dearer than all others. Perhaps this all-important subject is already decided, and wisely. There are peculiar trials for the doctor's wife. She must possess all the virtues of patience, endurance and cheerfulness, and although his patients show their tongues, she must never display hers.

Go forth with the ambition to do good work. Do not be misled into the notion that you must have the largest practice in your community. Be thankful, as I am, that every one does not want your professional services. But be ambitious to do good work and honest work for those patients who do employ you. The limitations of time and space press heavily upon us, and the physician who has a very large practice is also in great danger of slighting his work.

In all social matters be true gentlemen and gentlewomen. But do not cultivate society. You cannot be a social success and a good doctor. Nor should you aim to set the fashion for your community. A doctor's duties are hard upon his clothes, as upon his nerves and muscles. As Dr. Holmes says in the "Autocrat," "No fellow can be a thoroughgoing swell unless he has three generations in oil; mind you, daguerreotypes won't do." And Dr. Love adds, "The only time a doctor cuts a swell is when he lances a boil."

Don't be ashamed of having sentiment and a tender heart and pity. I know these are states not supposed to be possessed by doctors. If we would believe our newspapers, doctors are a heartless lot of harpies preying upon society, ready to pounce upon the unfortunate patient and cut him to pieces. But we know how far this is from a truth. Have a compassion for the suffering and diseased. It is no disgrace to you if the death of a patient should make you ill for a day or two. You will make better doctors for it. While sympathizing with the afflicted, overlook the weaknesses and faults in your colleagues. And, above all, close your ear to all tale-bearing from one doctor to another. Believe nothing that you hear derogatory to your professional neighbor, and only half of that which you yourself see.

Thus pursuing the course of duty faithfully day by day, you will achieve success and more than material success—a peace of mind, length of days, and true happiness. May all these be yours in large measure, is the earnest wish of all members of this faculty and your many friends.

## THE CLINICAL EXAMINATION OF BLOOD.

BY RALPH J. WENNER, M. D.,

Visiting Physician to St. Clair Hospital, and to the German Hospital,  
Cleveland.

Of late years, examination of the blood has come to be generally regarded as a diagnostic means without which, in some cases, a diagnosis cannot be made, and in others is delayed.

The reaction of the blood is alkaline, and it has a specific gravity varying in normal cases, according to different observers, from 1.040 to 1.070, being highest at the time of birth, sinking gradually during the earlier years of life, and reaching again its highest point at an average age of about forty years.

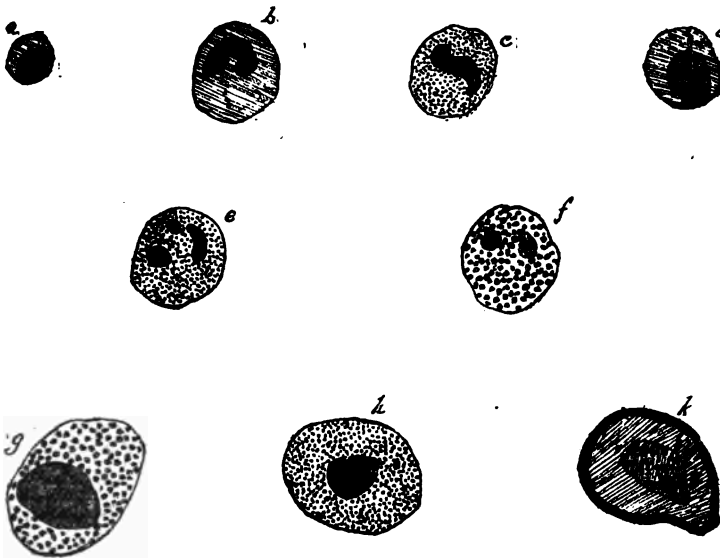
The morphological elements of the blood consist of red and white corpuscles and the blood plates of Bizzozzero. The number of red corpuscles is about five million in the male, and about four and one-half million in the female to the cubic millimeter. They do not contain nuclei that are visible by the ordinary methods of staining. In size they may vary somewhat. The number of white corpuscles varies from six to ten thousand to the cubic millimeter, and consists of the following varieties and proportions: Polynuclear, 64 per cent.; lymphocytes, 28 per cent.; large mononuclear, 6 per cent.; intermediate, 1 per cent.; eosinophiles, 1 per cent.

Ehrlich has classified the different anilin coloring matters as acid, basic and neutral. Under acid, orange G, eosin, acid fuchsin and indulin; under basic, Bismarck brown and methylene-green. The result of the action of an acid and basic color together is neutral. Haidenhain's modification of the Biondi-Ehrlich solution contains acid, basic and neutral coloring matters, and is recommended by Ehrlich, who divides cells whose protoplasm is acted upon into acidophiles, basophiles and neutrophiles.

The cell whose protoplasm unites with an acid dye is called an acidophile, oxyphile or eosinophile. The protoplasm is coarsely granular, the alpha ( $\alpha$ ) granulations of Ehrlich. When eosin is used they are stained a particularly brilliant red, hence the name eosinophile. These cells are about  $\frac{1}{2500}$  inch in diameter, usually have more than one nucleus, and are supposed to be derived from

the bone marrow and from the polynuclear neutrophiles. Basophile cells have the granulations—gamma ( $\gamma$ ) granulations—stained an intense blue. These cells are found in connective tissue and in the blood under certain conditions. Basic coloring matter also colors all the nuclei of the white corpuscles, as well as those of the red, when under certain conditions they appear a blue or violet of varying intensity.

The protoplasm of the polynuclear leucocytes seems to have no preference, but takes both acid and basic color-



VARIETIES OF LEUCOCYTES.

*a*, Lymphocyte; *d*, large mononuclear; *b* and *c*, intermediate; *e*, polynuclear neutrophile; *f*, eosinophile; *g* and *h*, Ehrlich myelocytes; *i*, Cornil myelocyte.

ing matter, when they are in combination, as in the Biondi-Ehrlich solution. Cells whose protoplasm is acted upon in this way are termed neutrophiles. The granulations—epsilon ( $\epsilon$ ) granulations—are dark red and blue, and much finer than the granulations of the eosinophiles. The nuclei varying in size and number, may have very irregular forms. These cells are derived from the intermediate variety.

The intermediate consists of two varieties, one, the earlier stage, having an irregular horseshoe-shaped nucleus, and an homogeneous protoplasm, the other having the nucleus horseshoe-shaped, but with neutrophile granu-



lations. This latter, as soon as its nucleus divides, becomes a polynuclear neutrophile. The intermediate are derived from the large mononuclear variety.

The large mononuclear cells are considerably larger than the lymphocytes, and have a protoplasm composed of extremely fine granulations — delta ( $\delta$ ) granulations — and a large round or oval nucleus, usually eccentric, and colored a light blue. These are derived, in part, from the spleen and lymphatics, and are also said to be formed in the medulla of bones.

The small mononuclear or lymphocytes are about the size of a red corpuscle, have a spare protoplasm with  $\delta$ -granulations and a large, dark blue nucleus. These cells take their origin from the lymphatic glands.

The first step in the examination of the blood is the counting of the corpuscles with the Thoma-Zeiss apparatus, and second, the estimation of the amount of hemoglobin with either the hemometer of Fleischl or that of Gowers. It is generally preferred to count the corpuscles first, for without the number of corpuscles the hemoglobin estimation amounts to nothing. For example, suppose the hemometer index shows 50 per cent. If, now, the corpuscles have been counted and found to be 2,500,000 to the cubic millimeter, we know at once that the amount of hemoglobin to each red cell is normal. The next step is the preparation of cover-glass specimens for the microscope. With a needle or a fine-pointed knife a small wound is made in the end of a finger or lobe of the ear, previously thoroughly cleaned with soap and water, alcohol and ether. Then a cover-glass, freed from all grease by being thrown into ether, held by a pair of flat branched forceps, is brought lightly into contact with the drop of blood, which has been allowed to flow without pressure. The blood on the cover-glass is then reduced to the thinnest possible layer, by drawing another cover-glass, cleansed as above, across its surface, thus making two preparations.

These specimens are now fixed in any of the following ways: 1. By allowing to dry in air for thirty-six hours. 2. By heating in a drying oven up to 120 degrees C. 3. By drying over a spirit flame for five minutes, blood side up, being careful not to burn the specimen. 4. By im-

mersion in equal parts of alcohol and ether, after having been air-dried for at least sixteen hours. A specimen treated in any of the above ways forms the native preparation, so called in distinction from those treated by the different anilin dyes. The specimen may now be mounted in balsam and examined. Native preparations may be used when examining for the plasmodium of malaria, for fibrin network and for a leucocytosis. Colored preparations are used when it is desired to bring out the form, size and hemoglobin contents of the red corpuscles and the contents of the white. A loss of hemoglobin is indicated by a pale area in the center of the red corpuscle, which may be large or small, according to the amount of hemoglobin lost. There is naturally a depression in the center of each red corpuscle, which shows itself as a small light-colored spot.

#### PATHOLOGICAL CHANGES AFFECTING RED CORPUSCLES.

1. Change in form—poikilocytosis.
2. Loss of hemoglobin—chlorosis or chloranemia.
3. Decrease in number—oligocythemia.
4. Difference in size—macrocytes and microcytes.
5. Nuclei containing normoblasts and megaloblasts.
6. Appearance of karyokinesis, as is seen in the nuclei in leukemia and the myelogenic form of chlorosis.

#### PATHOLOGICAL CHANGES AFFECTING THE LEUCOCYTES.

I. Decrease in number. This condition has been observed in epilepsy and typhoid fever, and by Rieder, of Munich, in a case of cirrhosis hepatis, and also in a case of primary progressive pernicious anemia.<sup>1</sup> In the last two cases there was an abnormally large number of blood plates.

#### II. Increase in number—leucocytosis.

##### A. Polynuclear.

1. During digestion.
2. In pregnancy.
3. By the action of certain drugs, pilocarpin, nuclein, antipyrin.
4. In carcinoma.
5. Accompanying inflammatory conditions.
  - a. Pneumonia (up to 60,900).<sup>2</sup>
  - b. Acute septic processes.

- c.* Suppurating meningitis.
- d.* Erysipelas.
- e.* Joint rheumatism.
- f.* Scarlatina.
- g.* Diphtheria.
- h.* Acute nephritis.
- 6. Immediately *ante-mortem* (up to 50,000).<sup>3</sup>
- B. Lymphocytosis.
  - 1. Lymphatic leukemia.
  - 2. Lymphatic chlorosis.
  - 3. In the condition known as scrofula.
  - 4. In sarcoma.
  - 5. General debility.
  - 6. Hemophilia and morbus maculosis.
- C. Eosinophilia.
  - 1. In pneumonia after crisis.
  - 2. In pemphigus they are found in the bullæ characteristic of this disease, where they seem to take their origin, but not, as has been shown by Professor Neusser, of Vienna, in the fluid of a blister artificially produced on a person suffering with this condition.
  - 3. Malignant lymphoderma.
  - 4. Pellagra.
  - 5. Caused by certain intestinal parasites, as tenia and ankylostoma duodenale.
  - 6. Uric acid diathesis.
  - 7. In bronchial asthma in blood and sputum.
  - 8. In emphysema in blood and sputum.
  - 9. In osteomalacia they appear in the blood as myelocytes.

## PRIMARY ANEMIA.

A. Primary progressive pernicious anemia, a disease described by v. Jaksch<sup>4</sup> as being characterized by a decrease in the number of red cells, with a relative increase in size and hemoglobin contents. The number of erythrocytes may sink as low as 300,000 to the cubic millimeter. Poikilocytosis is marked, and nuclei containing red cells, both normoblasts and megaloblasts, may be present in large numbers. A low grade of leucocytosis has been observed, although, as stated above, an actual decrease in the white cells has been recorded by Rieder.

B. Chlorosis or chloranemia. This disease, in contrast with the preceding, is characterized by a loss of hemoglobin, without a marked decrease in the number of erythrocytes.<sup>5</sup> In a series of fifty cases, Osler<sup>6</sup> says the average number of red cells was 4,225,181 to the cubic millimeter, while the amount of hemoglobin was reduced to 44.1 per cent. Guiteras<sup>7</sup> quotes twenty-eight cases of Gräber's in which the average number of red cells was 4,482,000, and the hemoglobin but 45 per cent. of normal. However, there are cases in which the number of red cells is reduced to such an extent that the case assumes somewhat the character of a pernicious anemia.

While, as a general thing, chlorosis is not considered a disease of the hematopoietic system, yet we have a myelogenic form of chlorosis, in which there may appear regeneration symptoms on the part of the bone marrow, and after every such appearance there may be an increase in the number of red blood cells that is not accounted for by the addition of the nuclei-containing erythrocytes. Microscopic examination also shows the red cells to be much paler than normal, and a low grade of leucocytosis frequently is present.

#### SECONDARY ANEMIA.

A. Secondary pernicious anemia in which the following conditions are present: Oligocythemia—decrease in the amount of hemoglobin to each corpuscle, poikilocytosis—nuclei containing normoblasts and megaloblasts, and a leucocytosis—polynuclear preponderating.

B. Secondary anemia of light grade, in which there is a chlorotic condition, slight decrease in the number of red cells, and with or without a leucocytosis, which, when present, may be of a light or high grade.

The etiology of secondary anemia may be shown by tabulation, as follows:

1. Post infections.
  - a. Pneumonia.
  - b. Typhoid fever.<sup>8</sup>
  - c. Endocarditis.
  - d. Scarlatina.
  - e. Acute nephritis.
2. Carcinoma and sarcoma.

3. Post hemorrhagic.
4. Intestinal parasites.
5. Chronic intoxication with lead, arsenic and phosphorus.
6. Secondary and tertiary syphilis.
7. Malarial cachexia.
8. Tuberculosis.
9. In certain skin affections, as psoriasis and chronic eczema.
10. Atrophy of the glandular apparatus of the stomach and intestines.<sup>9</sup>
11. Occasionally after the prolonged use of iodid of potash.<sup>10</sup>

#### INFECTIOUS DISEASES.

In croupous pneumonia, from the first to the fifth day, there is a thick, prominent fibrin network and a polynuclear leucocytosis that may reach 60,900. The eosinophile cells are usually wanting up to the time of the crisis, after which they may be increased in number. There seems to be no relation between the size of the exudate and the number of leucocytes. A failure on the part of the polynuclear leucocytes to increase, v. Jaksch<sup>11</sup> considers a bad omen, and accordingly administers such remedies as will produce a polynuclear leucocytosis—nuclein, pilocarpin, antipyrin, etc. Rieder<sup>12</sup> has observed that in many of the fatal cases the increase was very slight, but he also adds that a positive prognosis cannot be made from the number of leucocytes. The number of white cells decreases after crisis, unless absorption of the exudate takes place slowly, in which case the return to normal is delayed for some time. The fibrin network begins to disappear after the fifth day. The pneumococcus is rarely found in the blood.

In typhoid fever there is no fibrin network, and the number of leucocytes, according to Rieder,<sup>13</sup> who reports a case in which the white cells numbered but 1,800 to the cubic millimeter, is always diminished. A polynuclear leucocytosis always indicates a complication.<sup>14</sup> During convalescence there may be a condition of extreme anemia. In pneumonia and meningitis, complicating typhoid fever, caused by the specific cause of the fever, Halle and

v. Limbeck<sup>15</sup> claim there is no increase in the number of leucocytes.

In sepsis a polynuclear leucocytosis is the rule.

In cerebro-spinal meningitis there is usually a marked leucocytosis.<sup>16</sup>

In measles the rule is, no increase in the leucocytes, while in scarlatina there is often a high grade of leucocytosis.<sup>17</sup>

#### BLOOD CONDITION IN CARCINOMA.

1. In beginning carcinoma there may simply be a chlorotic condition of moderate grade.

2. A severe chlorotic condition with poikilocytosis and a polynuclear leucocytosis occurs in ulcerating carcinoma.

3. As the disease slowly but surely advances, we may find a severe anemia, poikilocytosis, loss of hemoglobin, a leucocytosis of varying grade, and the appearance of nucleated red cells.

4. Finally, the case may assume all the features of a pernicious anemia, with extreme poikilocytosis, loss of hemoglobin, a leucocytosis, and the appearance of myelocytes and nucleated red cells showing karyokinesis.

#### LEUKEMIA.

A disease in which the blood condition is characterized by a persistent increase of the leucocytes. It is said that in a marked case of this disease, a diagnosis can be made from the macroscopic examination of the blood, it being a thin fluid of a light red color, quite opaque, a drop having the appearance of a drop of oil.<sup>18</sup> The reaction of the blood is alkaline, although v. Jaksch<sup>19</sup> has found that in some cases the normal alkalinity is diminished.

A simple increase of leucocytes, no matter how great, does not necessarily determine a case of leukemia, for in other conditions there may be such an increase in the white cells that the proportion will be 1 to 4 (v. Jaksch), 1 to 12 (Reinert), 1 to 3 (Gerhardt). Eisenlohr observed an increase in a case of carcinoma to such an extent that the proportion of white to red was 1 to 50.<sup>20</sup>

An existing polymorphism of the white cells speaks for leukemia and against leucocytosis, for which latter a

preponderance of the polynuclear variety is characteristic. There is often a marked decrease in the number of red cells, and in a case reported by Sørensen<sup>21</sup> there were 470,000 red cells and 680,000 white cells to the cubic centimeter.

In leukemia generally are found the following conditions: Poikilocytosis; diminishing of the amount of hemoglobin to each red corpuscle—oligocythemia, usually of moderate grade; macrocytes and microcytes; nucleated red cells often showing karyokinesis; cells with basophile granulations (Mastzellen), and numerous myelocytes, among which may be mentioned those of Ehrlich—one variety having eosinophile granulations and a single large nucleus, the other with a single large nucleus and neutrophile granulations—and the myelocyte of Cornil, which is extremely large and has a large, oval, eccentric nucleus.

The Cornil myelocyte, when stained with hematoxylin, shows a protoplasm stained a light violet ( $\delta$ -granulations), the nucleus several shades darker, and a dark border around the circumference of the cell.

The three forms of leukemia usually described are the lymphatic, spleno-lymphatic, and spleno-medullary. There are but few cases of pure medullary or pure splenic leukemia recorded (Virchow Bd. 83).

The lymphatic form is characterized by a marked and persistent increase in the number of lymphocytes, coincident with which there may be an almost complete disappearance of the polynuclear neutrophiles, and the other varieties may also be diminished (Osler).<sup>22</sup> Ortnier, of Vienna, has reported a case in which the polynuclear neutrophiles sank to 2 per cent. Medullary elements rarely appear in this form.

The spleno-medullary is probably the most frequent form and is characterized by very little increase in the number of lymphocytes while relatively there is a marked decrease. The polynuclear neutrophiles may be present in normal proportion, but are frequently relatively decreased, and the eosinophile cells are increased in number. All the different kinds of myelocytes may be present, together with large mononuclear cells, which frequently show karyokinesis, and nucleated red cells, both normoblasts and megaloblasts, some presenting karyokinetic figures.

In the spleno-lymphatic form the lymphocytes are greatly increased in number, together with the large mononuclear or splenocytes. Myelocytes and nucleated erythrocytes may be present.

The variety in which the spleen, lymphatics, and medulla of bones all take part may present all the elements described above as peculiar to each.

#### ANÆMIA INFANTUM PSEUDOLEUKÆMICA.

A disease found in children and first described by v. Jaksch,<sup>23</sup> which consists of an enormous decrease in the number of erythrocytes, a loss of hemoglobin, and an increase in the number of leucocytes, although this increase never takes place to the extent found in leukemia. A case is reported by v. Jaksch,<sup>24</sup> in which the number of red cells sank to 820,000 and the leucocytes increased to 54,666 to the cubic millimeter. The increase in the number of leucocytes, most marked in the polynuclear neutrophils, is not confined to any one kind, but affects all, with the exception of the eosinophiles, which seem to be decreased in number. The white cells are all much larger than normal, and some are seen to contain whole or parts of erythrocytes. There is an enormous decrease in the amount of hemoglobin to each red cell, and also a high grade of poikilocytosis.

This disease is differentiated from leukemia by the extraordinary decrease in the number of red cells, by the marked loss of hemoglobin, and the unusual size of the leucocytes, polynuclear preponderating, whose increase rarely, if ever, is as marked as in leukemia.

#### PERINUCLEAR BASOPHILIA.

A condition noted by Prof. Neusser, of Vienna, in which an increase of uric acid beyond normal is indicated by the appearance of small, black points in the nuclei of the white corpuscles. These points are concentrated nuclein, a previous stage of uric acid, and are found in all conditions associated with an increase of uric acid, and most marked in the mixed form of leukemia. It is seldom noticed in tuberculosis, and those cases in which the condition was found, it is said, best responded to treatment.



## HODGKIN'S DISEASE.

A disease defined by Strümpell<sup>26</sup> as presenting exactly the same anatomical changes throughout the different organs as leukemia, and differing from it only in presenting no characteristic blood condition. Strümpell also goes on to say that it is doubtful whether this disease can be separated from leukemia, to which it at least is most intimately related, and further, that a case of pseudo-leukemia can become one of genuine leukemia, with the blood condition characteristic of leukemia.

On this point, Osler<sup>26</sup> says: "The white corpuscles may be moderately increased and the lymphocytes most abundant. Occasionally the leucocytes are greatly increased, and the characters of the blood become those of a lymphatic leukemia."

The decrease in the number of red cells is not, as a rule, excessive, nor the loss of hemoglobin great. Buck<sup>27</sup> reports a case in which there was an actual increase of red cells, there being 5,462,000 to the cubic millimeter, and the hemoglobin but 60 per cent. of normal, and another case in which the percentage of hemoglobin was 96. Nucleated red cells may appear, but not in such numbers as are found in leukemia. The lymphocytes are usually about doubled in number.

I counted the corpuscles in a case of this disease in which the number of red cells was 3,000,000 and the white 100,000, the increase being chiefly in the polynuclear variety. This increase was undoubtedly due to inflammatory conditions, for a few weeks previous to this there was but a slight increase of leucocytes and that was confined to the lymphocytes, which had increased to about 50 per cent.

## MALARIA.

Although to A. Laveran, a surgeon in the French army, has been given the credit of first discovering, in 1881, in the blood of those suffering with malaria, a parasite, which he designated as a cause of the disease, yet I believe that the parasite was found and described by Salisbury<sup>28</sup> as early as 1868 under the name of *Biolysis Typhoides*. The case he cites was a patient who lived in a malarial district, who had had repeated attacks of inter-

mittent fever, and who was, at the time of the blood examination, supposed to be suffering with typhoid. In this case he shows what he terms "white corpuscles robbed of their normal contents and filled with the spores of the biolysis typhoides." These corpuscles were, in all probability, red corpuscles robbed of their hemoglobin and showing segmentation of the parasite. In this illustration he also shows cells entirely colorless from which, he says, the spores had escaped. In the light of modern investigation along this line, I think we are justified in believing that Salisbury was describing the plasmodium.

Shortly after the discovery of the parasite by Laveran, Marchiafava and Celli, two Italian observers, discovered inside the red cells an ameboid body, the plasmodium, which frequently contained in its protoplasm, minute pigment particles. Thus far, all attempts to cultivate the plasmodium outside the body have been unsuccessful, although the intravenous injection of blood from a malarial patient will produce a case of malaria of the same variety as that in the patient from which the blood is taken.

In this country the question has been carefully studied by Osler, Councilman, Sternberg, Dock and James. Osler<sup>29</sup> states that he doesn't believe there has been a failure to demonstrate the plasmodium by a single observer who has had the necessary training and materials at his command.

Through the efforts of Marchiafava, Celli, Canalis and Golgi, we have, corresponding to the different clinical varieties of the fever—tertian intermittent, quartan intermittent, quotidian, acyclical, remittent, pernicious algid, etc.—three types of the malarial parasite, the development and life of which, together with the symptoms of the above mentioned fever forms, exist in most intimate relation. In tertian intermittent, at a certain stage, there appear free in the blood, small, movable tail-bearing bodies containing pigment. These are the ectoglobular parasites which resemble somewhat, in form, a spermatozoid, and are usually seen two or three together. The parasite wanders about in the blood and finally enters a red cell, after which it begins to increase in size, at the same time devouring the hemoglobin. The

plasmodium keeps on increasing in size at the expense of the hemoglobin, until finally the corpuscle has lost all its coloring matter, while collected in the center is the pigment. The pigment, which is the excreta of the parasite and composed of hemoglobin, shows lively molecular movement.

All the above changes take place during the apyrexia. Now segmentation takes place and soon the parasite shows from 10 to 20 segments, which finally burst forth into the blood, and then occurs the chill. The red cell which contained the segments is destroyed.

In quartian intermittent, the cycle of events is similar to the above, except that the parasite requires three days of development, and segmentation is more regular, the segments numbering from 6 to 10.

Quotidian fever is, according to Golgi, caused by the development of three generations of the quartian parasite, one generation developing each day.

In the acyclical, remittent, pernicious algid, etc., two forms are usually found,—the half-moon form, usually the one found in the acyclical variety, and the egg-form, bearing two tails. A spindle form is also sometimes described.

When a stained specimen is desired, the following staining methods may be used to advantage:

First method.—1. Air dry for 24 hours.

2. Heat up to 115° C., or immerse 2 hours in equal parts of alcohol and ether.
3. Five minutes eosin-alcohol solution.
4. Two minutes Löffler methylene-blue sol.
5. Mount.

Second method, after Marchiafava.

1. Air dry for 12 hours.
2. Fix in a saturated watery sol. of picric acid one half day.
3. Wash in water 6 hours.
4. Stain with a diluted Delafield's hematoxylin solution (one-third dye, two-thirds distilled water) for 24 hours, rinse in alcohol and mount.

Third method, as recommended by v. Jaksch.<sup>30</sup>

In a physiological salt solution dissolve enough methylene-blue to give a moderately dark color; filter,

sterilize and place in a sterilized test tube. When it is desired to make an examination of the blood, place a drop of this solution on a well cleaned finger tip, and stick through the drop. Bring a cover-glass in contact with this mixture of blood and stain, and reduce to a thin layer by drawing another cover-glass across its surface. Seal the specimen with paraffin and examine with a 1-12 in. oil-immersion lens for plasmodium.

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## Editorial.

### SIXTY-NINE YEARS IN THE HARNESS.

During a recent professional visit to Doylestown, this State, we made the acquaintance of a physician about whom the readers of the GAZETTE may be interested to hear. The practice of medicine is usually and probably with justice considered uncondusive to longevity in its devotees (whatever may be the effect upon those who receive their attentions), and it is with some satisfaction that one hears of a physician in practice at the age of ninety-three years. We take pleasure in introducing the subject of this sketch, and in presenting his portrait, from a photograph taken the past winter. Charles Frederick Hermann Wuillgohs was

born Nov. 20, 1803, near the city of Kiel, at Léuson, a baronial estate in the Grand Duchy of Holstein, which at that time belonged to Denmark, but in 1866 came into possession of Prussia. His father, John Jacob Franz Wuillgohs, was an army surgeon, spending forty-six years in military service. He resigned his position in the army in 1815 and became Medical Syndicus of the Province of Mecklenburg, which position he held until 1830, when he was killed on horseback during a battle, at the age of 83. His mother's maiden name was Hedwig Binge.

Dr. Wuillgohs obtained his literary education at Guestrow and Parchim. He was a schoolmate of von Moltke, who was three years older than himself, and he relates numerous anecdotes of the afterwards famous warrior and statesman. His medical education was obtained at Kiel and Rostock, principally the latter, taking his degree of M. D. from the University of Rostock, in 1828, and afterwards serving in the hospitals of Rostock and Schwerin. In 1824, at the age of 21, while still a medical student, he had sanitary charge of a pleasure party on a trip to the Arctic Sea, off the coast of Norway, where they reached the 81st degree of latitude. The trip lasted several months, the party returning in the fall. After graduating, he began practice at his old home and remained there till 1830, when on the breaking out of the Polish revolution he went to Poland and was assigned to service in the war hospitals in Warsaw. The revolution lasted till September of 1831, when it collapsed, and the doctor, with many others, made his way as best he could back to Germany. He resumed practice till 1835, when political complications caused him to emigrate to the United States. He reached New York in October, 1835, and spent two years in Rochester and Schenectady, when he came on to Ohio, settling at New Berlin, Stark County. He afterward moved to Thompson, Seneca County. In 1840, he moved to Marshallville, Wayne County, then called Bristol, where he remained seventeen years—till 1857. He then moved to Summit County, and finally to Doylestown, Wayne County, in 1878, where he has remained ever since. February 9th, 1845, he married Maria Leibelsjerger, of Summit County. They had three children, one dying in infancy and two still living—Mrs.

M. A. Schenck, of Cleveland, and Mrs. F. Zimmerman, of Akron. His first wife died in 1849, and in 1854, May 29, he married Miss Catherine Schandall, of Milton township, Wayne County, who has borne nine children. Of these, two died young. The names of the others are as follows: Mrs. C. I. Dickenson, of Peninsula; Mrs. T. C. Parson, of Euclid, Cuyahoga County; Mrs. H. F. Dies, since deceased, of Tallmadge, Ohio; Emma, Charles, Rosa and Henry. At present he has nineteen grandchildren and three great-grandchildren.

At the time of our visit, Dr. Wuillgohs was as active as many a man of fifty or sixty years. He moved about the room as quickly as any one, and referring to an article he had seen in a newspaper, he found it and read it by lamplight, without the aid of glasses and without apparent difficulty. His hearing is good. He attends patients, even making visits in the country in tolerable weather. He is very entertaining in conversation, and related his experiences with measles, scarlet fever, small-pox, phagedenic wounds, cholera and pest fever, in the military hospitals and camps. He said he would rather attend cholera any time than small-pox, and preferred small-pox to pest fever, which he regarded as most dreadful and loathsome of all. He had pest fever once himself and once typhoid fever. Four times he has suffered severe attacks of blood poisoning acquired from foul wounds. In youth he was greatly troubled with nose bleed, but the attacks gradually ceased as he grew older. Once he had the novel experience of being tarred and feathered, and that did not occur in benighted Russia, but in free America—and in New Berlin, Stark County, Ohio, where the doctor was too emphatic in expressing his political sentiments to suit some of his opponents. The nineteen perpetrators were afterward arrested and heavily fined. Among his earlier exploits the doctor tells of the battle of Ostrolenka, in which it was conceded that he turned the tide of battle into a Polish victory by leading a body of five hundred men to destroy a bridge. In the whole battle the Russians lost 60,000 men—killed, wounded and prisoners.

“ It was not because I was so valorous or so barbaric, but because a cavalryman made me insanely mad and

bloodthirsty," said Dr. Wuillgohs, in relating this incident, "that I threw off my coat and hat and with a cheer made for that bridge."

The aged physician talked very entertainingly of phlebotomy, which was so much used in his younger days, citing cases in which it was used with the greatest benefit. He believes it should still be employed occasionally; but he does not think it was mere fashion that led to its almost entire abandonment, nor yet to the introduction of drugs to take its place; but he holds that the type of many diseases changed about the years 1841 to 1843, so that phlebotomy was found inefficacious. He remembers Dieffenbach and von Graefe.

Dr. Wuillgohs attributes his longevity to heredity and regular habits. He says every male member of his family for the past three hundred years who has died a natural death lived to be more than one hundred years old. His grandfather, at the age of one hundred and six cradled wheat for three days and died from overheating himself. The doctor is an habitual smoker, but did not acquire the habit until he was fifty-three years of age (a very safe rule by the way), when he first used tobacco to allay a toothache. He is a great lover of coffee and has been all his life, but never uses tea. He seldom has used alcoholic stimulants—only in case of a wetting or extreme exposure. He has endured all the hardships of the country doctor in a new country. In his professional knowledge, Dr. Wuillgohs is by no means fossilized. He reads modern medical books and is conversant with all the epoch marking works of this generation.

One could find few men in a day's search so well posted on the political history of Europe for the last hundred years, and at mention of the subject he fires up like an old war-horse. He says that the nineteenth century surpasses all others that history gives an account of. First, there were the Napoleonic wars, then about 1822 the revolution of South American States against Spain; that of Greece against Turkey, of Russia against Turkey; and in 1828, of Poland and Russia; 1830 and 1831, Belgium and Holland; then the Spanish secession war and revolution in France against Charles X.; then intervention of France in Belgium and Spain; revolution of France



to dethrone Louis Philippe; 1848, revolution in Austria and Germany; 1854, Russia, England, France, Italy and Turkey; 1856, France and Italy against Austria; 1861, the war of ourselves against ourselves; 1862, Germany against Denmark; 1870, France and Germany, and all along the revolution of Mexico and the South American States, and wars amongst themselves, of England and Russia in Asia, etc. But of all great wars, according to Dr. Wuillgohs, the greatest is yet to come; it is for the supremacy in Europe—France and Russia on one side, and Germany and other powers on the other. In this he predicts that Germany with Austria will hurl the Russian hordes back to Asia. Likely Germany and Austria will unite in one grand nationality with all the lesser Teutonic states, putting an end to the so-called balance of power, just as surely as the United States will some day control the north and south American continents. When the bride, Turkey, is to be parceled out, no doubt Austria will make the Balkans its line and perhaps all European Turkey. She needs the Danube valley as much as the United States needs the valley of the Mississippi.

When he came to Ohio, Cleveland had only a few thousand people, about like Orrville now, and by census in 1840, only about 6,000 inhabitants. Toledo was on paper only. He stayed over night there in a shanty, and to the best of his recollection it had only three houses. In 1837, Sandusky City looked larger, and Cincinnati was the great emporium of Ohio, with about 12,000 souls.

Dr. Wuillgohs intends to live to be one hundred years old, and we hope he will. But grippe has used him rather badly of late. Coming from Russia, it seems to be particularly obnoxious to him.

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## **Periscope.**

### ON THE COLOR OF THE FECES.

Prof. Quincke, in an address before the Physiological Society of Kiel (Germany), reported in the *Münchener Med. Wochenschrift*, 1896, gave the following as the results of his observations and experiments. According to

him, the color of the feces is subject to the color of the constituents, the transparency and reaction of the mass, the reduction processes in the intestinal canal and the biliary coloring matters.

Of particular interest and partly antagonistic to the views and statements heretofore held as authoritative, are the observations of the author of the influence of medicinal doses of some metallic salts on the color of the excrement. The dark green and blackish color of the stool after the administration of bismuth subnitrate is not due to a bismuth sulphid, as was formerly supposed, but to a reduction to bismuthous oxid. The feces following the use of iron preparations are not black, as we were previously lead to believe from text-books, but after defecation they have a natural color and then gradually take on a superficial brown to grayish black tint. According to this the iron does not form iron sulphid in the intestine, but probably an organic compound, which becomes greyish-black under the influence of the oxygen of the air. The calomel stools are much less often green than would be supposed from the accepted ideas on this point. If the characteristic color be present, it is due to the fact that the calomel has retarded the putrefactive and reducing processes in the alimentary tract, and as a consequence a part of the original green biliary coloring matter (biliverdin) is not reduced to urobilin; the previous supposition that mercuric sulphid was responsible for the green color is therefore erroneous.

After the use of methylene-blue, the stools leave the bowel with the ordinary color, but in a short time the parts exposed to the air take on a bluish-green tint—a proof of the energy of the reduction processes of the intestines. Of the metallic salts, such as silver compounds or lead acetate, no noticeable influence on the color of the feces is observed.

J. G. S.

#### ASEPSIS AND ANTISEPSIS IN OBSTETRICS.

In the *Archiv für Gynäcologie*, Vol. 52, Part 3, P. Baumm, of Breslau, discusses asepsis and antiseptis in obstetrics. The following is a short abstract of his article:

In the different lying-in hospitals where a puerpera shows a temperature over 38° C. (100.4° F.) the condition is considered pathological. Fever in women in child-bed arising from the genitals is undoubtedly due to the infection of wounds in those parts. Our duty, therefore, is (1) to avoid this condition by prophylaxis, the best method being that which shows the smallest percentage of cases of fever, or (2) to aim at rendering the germs harmless if infection has taken place.

I. *The Avoidance of Fever.* In spite of every effort, I have always had a higher percentage of fever cases than Hermann, Hofmeier, Leopold and others. At the same time I must say that my ultimate results were no worse than theirs. Looking for the cause first in myself, I took the most strenuous precautions, and observed the strictest asepsis. I dispensed to a considerable extent with internal examinations. But in a series of patients, who were not examined internally, the percentage of morbidity was as high as 21.4 per cent. Now if the internal genitals are not touched, it would certainly seem as if the results should be as good as in cases examined with perfectly disinfected fingers, if the rest of the labor is conducted with the same precautions. But if, as is the case, our figures demonstrate that the patients who were not examined show a higher percentage of morbidity, the reproach of insufficient disinfection on our part is conclusively answered. From the various vehicles of infection, the hands and instruments must be excluded in the unexamined cases; the secretions of the genitals are the same whether examination has taken place or not; water, linen or dressings, and air under aseptic conditions do not threaten the health, and every competent obstetrician knows how to render them harmless. Bathing and proper disinfection obviate the dangers coming from the external genitals.

If, then, the brilliant results of other institutions are not due to superior disinfection, how are they to be explained? Ahlfeld suspects that the difference is due to mistakes in the measurements of the temperature in the more fortunate hospitals, and I regard the results in the case of our patients who were not submitted to internal examination as a proof that he is right. The taking of the temperature in the axilla is not sufficiently reliable; to avoid mistakes it should be taken by rectum. It is probable that long continued more exact determinations will show higher rate of morbidity.

But why do these patients who have not been examined have fever? Every elevation of temperature must not be attributed to negligence on the part of the attendant. If it comes from the poisoning from the presence of micro-organisms, certainly we did not introduce them into the wounds in the genitals. As to the nature of the poison in the blood I will say nothing definitely, but if it comes from micro-organisms it must originate with the germs which naturally have their habitat in the vagina. On the ground of our clinical observations, this explanation must be accepted, until a better can be demonstrated.

Why then do not all patients have fever? All have

wounds, and micro-organisms in the vagina. Simply because these germs are not all virulent. Some are more poisonous than others, hence the varying degrees in the pathological process.

From our observations of the course of child-bed in more than 500 patients not examined internally, I am able to lay down the rule that such women indeed may have fever, but, *ceteris paribus*, are never in danger. The vaginal germs, though not harmless, are not dangerous.

But no doubt these germs can take on a greater virulence under peculiar conditions. The soil is affected by manipulation of the genitals, which may prove a very important factor. We found that in those not examined internally the percentage of morbidity was 21.4 per cent., in those examined internally, 25.26 per cent., and in patients operated upon, 39.85 per cent. In the first group the number of those who had high fever was 3 per cent; in the second, 9 per cent, and in the third 16 per cent. Now, as infection could be carried by the hands and instruments only, and as the latter can be rendered absolutely sterile, and the former are equally disinfected whether the patient be only examined or operated on, the greater morbidity in operated cases, as compared with those only examined, must be due to the favorable culture ground supplied by lacerated and dying tissues and by the wound secretions. Again pathological changes in the vagina often favor the development of virulent germs. Purulent discharge, retention of portions of the ovum, or decomposition of the dead fetus after a premature rupture of the membranes is more apt to be followed by a pathological puerperium. The occasional freedom from fever under these conditions must be taken to mean that virulent germs were not present in the genital tract.

In this way is to be explained the fever occurring after an internal examination, which, if made clumsily, is almost equivalent to an operation. We need fear vaginal germs only when an especially favorable soil is at hand for them. This is generally created by wounding the genital mucous membrane, which can be best avoided by the omission of internal examinations.

II. *Can We Render Germs Harmless?* For some time I have omitted the vaginal douches in parturients. *A priori*, it is unnecessary to intrude upon a physiological process, and besides, Steffek has shown that cultures can develop after such a cleansing. But in addition to this, my own observations showed that no diminution in the frequency of the occurrence of fever was brought about by this procedure. In gynecological operations or in the induction of premature labor where the os is closed it may be possible to gain something by internal disinfection.

I have gone further and have omitted douches of the vagina before obstetrical operations and that too with no worse results. Except in cases of a putrified condition of the contents of the uterine cavity, in my clinic douches are omitted even after delivery, for fear that we might drive the poisonous material further up and into the tissues. Even in these exceptional cases I am doubtful whether douching does any good; in one of my cases of tympania uteri, death resulted though this procedure was employed. Some have thought to bring about absence of germs by a careful washing of the genital canal. Steffek advised rubbing with two fingers, a 3 per cent. carbolic acid solution being employed. But what if the fingers are not sterile? I think it unwise to permit the midwives to be continually disturbing the internal genitals. It is better to trust to Nature's contrivances, and omit prophylactic douches and washings.

How often did the germs introduced by the hands or instruments cause the fever observed in these various cases?

Experiments showed me that our present methods of hand disinfection are not altogether satisfactory. And yet there were barely 4 per cent. more fever cases in the examined patients than in those not examined. This might have been due to the fact that most of the germs on the fingers were not pathogenic, or only conditionally so, or what is most probable, because mere contact would not remove germs that had resisted soap and the nail brush. I am inclined to believe that the greater severity of fever in examined patients, and the increased frequency and severity in operative cases are due to a change in the culture soil rather than to incomplete disinfection.

This question of methods of disinfection is important. Until recently sublimate was popular. But lately good results have been obtained by Ahlfeld and others with alcohol. I myself repeated some of these experiments and found sublimate, carbolic acid, and lysol quite inefficient, but obtained negative results from cultures in 87.5 per cent. of cases in which the hands had been finally well scrubbed with alcohol. This sterility cannot be due to the traces of alcohol carried over into the tubes, since experiments showed that three large drops have no such inhibiting effect. The bactericidal power of alcohol is undoubted. It kills streptococci and staphylococci after one minute, but does not destroy all micro-organisms. But as sublimate also has a high bactericidal power, why does alcohol disinfect the hands so much better? I believe it is because it can penetrate the epidermis and kill the organisms not only upon but also under the surface, while sublimate kills at most only the superficial germs.

It would seem to be proved that by far the best sterilization can be reached with 96 per cent. alcohol. The disadvantages in regard to cost and of carrying such a great bulk of fluid as would be necessary in a long labor, could be diminished if the use of weaker solutions could be shown to be equally satisfactory. Mixtures of equal parts of alcohol and water and in the proportion of 1 to 3 were found to kill the cultures after 1 and 3 minutes respectively; but similar experiments with hand disinfection are still wanting. I now use alcohol in dealing with infectious material and before operations.

In regard to what I said before I may add the following correction. The percentage of febrile cases is significant only when the method of temperature measurement is universal, and only those patients whose convalescence after a labor exceeds the usual time are to be classed among the pathological cases.

To my second statement I stand firm. I prefer to help Nature in the fight for life rather than to grapple with the enemy by local treatment.

H. R.

### Among Our Exchanges.

Some months ago we called attention to the use of oxalic acid as a remedy in *amenorrhea*, whose value was vouched for by more than one contributor to current medical literature. In discussing the treatment of the *amenorrhea* which so often follows a sea voyage, DR. HOMER C. BLOOM, of Philadelphia, adds his testimony as to the value of oxalic acid. He says:<sup>1</sup> "There is about oxalic acid some subtle influence for good in many of these cases, the explanation of which I know nothing, but practical results show that when combined with iron and manganese \* \* \* it does more good than any other single prescription." His formula is as follows: R—Oxalic acid, grs. iv; peptonate of iron, grs. xcvj; peptonate of manganese, grs. clx; elixir of curacao, fʒij; water, fʒvij. M. Sig.—A tablespoonful in a glass of milk or a wine-glass of sherry wine three times a day. And in cases where he finds strychnin indicated he combines the oxalic acid with it as follows: R—Sulphate of strychn., grs. ij; peptonate of iron, grs. cxx; oxalic acid, grs. x; lactate of manganese, grs. cxx; colocynth. comp. cer. grs. xxx. M. Maké 60 capsules. Sig.—One capsule an hour after each meal. Evidence seems to be accumulating confirmatory to the claims of DR. WM. OVID MOORE, of New

<sup>1</sup> *University Med. Magazine*, Dec., '96.

York City, that permanganate of potassium is the most immediate and effective antidote in cases of *opium* or *morphin poisoning*, and that it is not without value even when the drug has been given subcutaneously. Some ninety or one hundred cases have been reported to DR. MOORE in which the antidote proved of great value. The permanganate instantly oxidizes morphin into a substance akin to pyridin—tricarboxylic acid<sup>2</sup>—a substance wholly devoid of narcotic or other harmful effect, as the doctor has proved by taking as high as five grains of morphin, followed shortly by eight grains of the permanganate dissolved in eight ounces of water. No ill effects whatever were experienced. The conclusions expressed by DR. MOORE are that the antidote should be given at once without wasting time on emetics and the stomach pump, as an antidote acting instantaneously is far superior to either. Eight to ten grains well diluted should be given by the mouth to decompose the alkaloids of opium that may still be in the stomach. A weak solution (one grain to the tumblerful of water) should be given from time to time to destroy alkaloids which, as HITZIG and others have shown, are excreted into the stomach after having been absorbed into the circulation. It is well, also, to give a 1 to 100 solution subcutaneously, as experiments show that such injections are followed by an improvement in respiration, and they can do no harm in any event. The increased frequency of cases of *carbolic acid poisoning* gives great interest to the statement of PROFESSOR CARLETON that *vinegar* will not only neutralize the poison and render it harmless<sup>3</sup> but will cause the rapid disappearance of the characteristic whiteness, as well as of the anesthesia produced by the carbolic acid, and will prevent the formation of a slough. This rule is, therefore, when carbolic acid has been swallowed, to make the patient drink vinegar, diluted with equal parts of water, and wash out the stomach. It is claimed<sup>4</sup> also by DR. DONALD B. FRASER, of Stratford, Ont., that *alcohol* has a like antidotal action for the constitutional as well as for the corrosive effects of the acid. We are apt to forget that as a local analgesic *stramonium* ranks high among the solanaceae, as much above belladonna as the latter outranks stramonium as an internal anti-neuralgic remedy. This renders stramonium peculiarly advantageous in the local palliative treatment of *hemorrhoids*, though, as it would appear, the make-up of the ointment is by no means the whole of the palliative treatment of piles. DR. JOHN L. JELKS, of Memphis, Tenn.,<sup>5</sup> puts these cases on a course of calomel

<sup>2</sup> *Med. Rec.*, Jan. 2, '97.

<sup>3</sup> *Semaine Medicale.*    <sup>4</sup> *Med. Rec.*

<sup>5</sup> *Hot Springs Med. Jour.*, Nov., '96.

and quinin followed by the daily use of salines. The lower bowel is washed out at bedtime with warm water, and then an injection of hydrastis and witch hazel is given according to the following formula: R—F. e. hydrastis., f. e. hamamelis, āā f̄jss; aquae, f̄jiij. M. Sig.—Inject one-half ounce with an equal quantity of water at bedtime. A cool water enema is directed in the morning, and then by means of an ointment carrier a small amount of the following ointment is introduced: R—Ext. stramonii, gr. xx; acid. tannic, gr. x; morph. sulph., gr. iiij; vaseline, ad 3j. M. Sig.—Unguent. While there is nothing new in the statement of M. JACOUD that there are contraindications to the use of the salicylates,<sup>6</sup> it is just as well that we remind ourselves of them occasionally. He holds that the beneficial action of the drug is limited to the joint affections, and that its effect on the visceral complications is bad. He never prescribes it where there is endocarditis; dyspnea is increased if it be used in pulmonary complications; albuminuria is more likely to appear under its use, absolutely contraindicating it where there is headache, delirium, or cerebral complications. He concludes that it should never be given when such complications exist, for, while relieving the arthritic lesions the salicylates intensify the other lesions.

The heated term last summer afforded unusual opportunities for comparing the merits of the various methods of treatment in vogue for *insolation*. The record of the Flower Hospital, New York City, as reported by DR. EDWARD D. RUDDEROW,<sup>7</sup> was noteworthy by reason of the very low death rate—three cases out of the seventy-six admitted on the five days of extreme heat, Aug. 9th to 13th, inclusive. The temperature ranged high, many cases reaching the top register of the ordinary clinical thermometer—110°, and when an instrument registering to 120° had been obtained, temperature as high as 112° was recorded. The treatment was simple and easy to carry out. The patient was taken to the cellar, laid on a spring cot covered by a rubber sheet, undressed, an ice-cap applied to the head, and the whole body was vigorously sprayed with water from the hydrant, discharged through the ordinary garden hose, the stream being broken into a series of fine needles by a suitable nozzle. Three streams were kept playing on the patient at once. The temperature of the water was about 75°. The stream was directed along the course of the larger vessels, the carotids, the femorals, and the axillary, care being taken to avoid the nose, mouth and ears of unconscious patients.

<sup>6</sup> *Sem. Medicale*, Oct. 28, '96.

<sup>7</sup> *Hahnemanian Monthly*, Jan., '97.



No massage or friction of any kind was used other than that caused by the force of the spray impinging upon the skin, and no ice except to the head. In milder cases where the temperature did not exceed  $104^{\circ}$  in the rectum, the spray was continued till the temperature reached  $100^{\circ}$ , but in cases of higher temperature ( $108^{\circ}$  and over) when  $103^{\circ}$  was reached the spray was stopped, the patient was wrapped in two blankets and laid in the laundry department, which was the coolest place in the building, being about  $10^{\circ}$ – $15^{\circ}$  cooler than the outer air. It was noticed after one or two trials that if these patients having excessive temperature were sprayed down below  $103^{\circ}$  they sank to subnormal, whereas if the reduction was stopped at  $103^{\circ}$  the subsequent fall stopped at  $98.5^{\circ}$ . If there was an excessive secondary rise, the spray would be again used. The pulse was sustained by hypodermics of strychnin, in 1-30 grain doses, and the tendency to convulsions, when marked, was met by  $\frac{1}{4}$  grain doses of morphin. The advantages claimed for this method are: First, absence of all shock (the temperature of the water being about  $75^{\circ}$ ); second, the absence of all violent or extreme measures, such as massage, flagellation, etc., commonly associated with the ice treatment; and third, the ease with which patients are manipulated, no masseurs being required, for the force of the water furnishes all the friction necessary.

There can be nothing worse in the long run for an article of real merit than to be over-advertised in the beginning, and then to become associated in the minds of the profession with quackery. Such misfortune befell the BROWN-SEQUARD treatment, but, encouraged by the results of the administration of thyroid extract, men are beginning again to go over the ground covered by BROWN-SEQUARD, with a view of accurately determining whatever of merit there may be in his method. DR. F. SAVARY PEARCE, of Philadelphia, makes a very interesting report in this connection,<sup>8</sup> of twenty-five cases treated, nineteen being of locomotor ataxia. Eleven of these cases seemed to be stimulated to at least temporary improvement, although a large proportion of the cases were in the advanced stage of the disease, with sexual power much reduced, or, indeed, impotent. The effect was a general stimulation of the nervous system, described by the patients as a sense of "well-being." There was an ease of breathing and increase of pulse force as though the respiratory and cardiac centres were buoyed up to more active work. Increased muscular strength and endurance and better coördination were noticed in some of these ataxics. In four, there was marked increase of sexual

<sup>8</sup> *Med. and Surg. Reporter*, Sept. 5, '96.

power and general comfort. These cases seem to demonstrate that beyond and aside from any "psychical influence," the treatment has proven stimulating in diseases of a chronic nature, where nerve power is at a low ebb, acting as a temporary tonic by general cerebro-spinal stimulation, and at times relieving the pain and crises of *tábes* and greatly stimulating the sexual function in a few cases. It cannot be claimed as curative *per se* in any malady, but may prove a valuable aid toward recovery. The fluid used by DR. PEARCE was a glycerin extract prepared from the testicles of healthy bulls—under aseptic precautions, of course. The gland, carefully freed from all its coats, including the tunica albuginea, and thoroughly crushed, was placed in pure glycerin and allowed to macerate forty-eight hours, was filtered, the filtrate supersaturated by adding a small extra amount of the liquid part of the residue, and the mixture sealed in aseptic vials. By this method one large testicle makes about one ounce of extract. After the injection (best in the deep tissues of the gluteal region, next best in the outside of the upper half of the thigh), gentle massage is given to favor dispersion and prevent local irritation. A larger needle than the ordinary hypodermic needle should be used, and a syringe which can be kept thoroughly aseptic. DR. PEARCE had but two cases of abscess in 500 injections. Between twenty and thirty minims of extract diluted with water is the best dose, and about every other day the proper interval. The occurrence of nausea, vomiting, or diarrhea, is indicative of overdose. On the whole, the report is very encouraging, for if we can ameliorate the symptoms in eleven out of nineteen cases of advanced ataxia, we may call ourselves very fortunate indeed.

L. B. T.

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### New Books.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. By J. Nevins Hyde, A. M., M. D., Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago, and Frank H. Montgomery, M. D., Lecturer on Dermatology and Venereal Diseases, Rush Medical College, Chicago. New (fourth) edition. In one octavo volume of 815 pages, with 110 engravings and 12 full-page plates, 4 of which are colored. Cloth, \$5.25; leather, \$6.25. Lea Brothers & Co., Publishers, Philadelphia and New York, 1897.

The first edition of this work appeared in 1883, the third edition in 1893, and here is the fourth, in 1897—surely stamping the book with the approval of the profession. On examination one is not surprised that it has

met with continued success. Dr. Hyde and his assistant have produced a book suitable at once to the teacher, the student and the practitioner. It is complete without being too cumbrous, and concise without being too brief. The price is moderate; and when one compares the number and quality of the illustrations with those of the many atlases on the same subject, it is surprisingly cheap, for the engravings are of fine workmanship.

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THE AMERICAN YEAR BOOK OF MEDICINE AND SURGERY. Being a yearly digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Text Books of the leading American and Foreign Authors and Investigators. Collected and arranged with critical editorial comments by J. M. Baldy, M. D., Charles M. Burnett, M. D., Archibald Church, M. D., Arthur H. Cleveland, M. D., Colman W. Cutler, M. D., J. Chalmers Da Costa, M. D., W. A. Newman Dorland, M. D., Louis A. Duhring, M. D., Virgil P. Gebney, M. D., Homer W. Gebney, M. D., Henry A. Griffin, M. D., John Guiteras, M. D., C. A. Hamann, M. D., Howard F. Hansell, M. D., Barton Cooke Hirst, M. D., E. Fletcher Ingalls, M. D., W. W. Keen, M. D., Henry Leffmann, M. D., Henry G. Ohls, M. D., Hugh T. Patrick, M. D., William Pepper, M. D., Wendell Reber, M. D., David Riesman, M. D., Louis Starr, M. D., Alfred Stengel, M. D., G. N. Stewart, M. D., Thompson S. Westcott, M. D., under the general editorial charge of *Geo. M. Gould, M. D.* Properly illustrated. Philadelphia, W. B. Saunders, 1897. Price, cloth, \$6.50; half mor., \$7.50. By subscription only. W. T. Galbraith, New-England Building, Agent for Cleveland and vicinity.

This is the second Year Book issued by Mr. Saunders, the first having been cordially received by the profession. It follows the same general plan as the first volume, but more attention has been paid to critical remarks or opinions by the editors, upon new operations, remedies or procedures. The contents are arranged in sixteen departments, General Medicine, General Surgery, Obstetrics, Gynecology, Pathology, Pediatrics, Nervous and Mental Diseases, Orthopedic Surgery, Ophthalmology, Otology, Diseases of the Nose and Larynx, Dermatology and Syphilis, Materia Medica, Experimental Therapeutics and Pharmacology, Anatomy, Physiology, Medical Jurisprudence, Hygiene, and Clinical Chemistry. The work of the editors has been excellently done. It is not a mere compilation or index of the periodical literature, but the matter presented has been carefully selected, boiled down and digested, and presented, along with the department editor's opinion upon it. Each department is introduced by a *résumé* prepared by the department editor, of the work and progress of the year.

The engravings are fine, and the styles of type used for the body of the text and the headings and sub-head-

ings make it easy to find any subject sought. Altogether the physician will find the Year Book a very satisfactory and helpful mirror of the year's progress, as well as a very handsome volume. We are pleased to see Cleveland represented by Dr. C. A. Hamann, who has the department of Anatomy, and Dr. G. N. Stewart, who edits the Physiology department.

#### PAMPHLETS RECEIVED.

In most instances pamphlets mentioned here may be obtained by writing to the author and enclosing a stamp. Kindly mention the GAZETTE.

CYCLONE NEUROSES. By C. H. Hughes, M. D., St. Louis, Mo. From the *Alienist and Neurologist*.

IMPERATIVE CONCEPTIONS. A Note. By C. H. Hughes, M. D., St. Louis, Mo. From *The Alienist and Neurologist*.

THE THERAPEUTIC VALUE OF HYDROBROMATE OF SCOPOLAMINE IN PLASTIC IRITIS. By Charles A. Oliver, A. M., M. D., Philadelphia, Pa. From *The American Journal of the Medical Sciences*.

ABSTRACT OF PROCEEDINGS OF THE MICHIGAN STATE BOARD OF HEALTH. Quarterly Meeting, Jan. 8, 1897. Reported by Secretary Henry B. Baker, of Lansing.

PROCEEDINGS AND ADDRESSES OF THE THIRD ANNUAL CONFERENCE OF THE HEALTH OFFICERS IN MICHIGAN. Held in Ann Arbor, July 16 and 17, 1896. By authority.

NEOPLASMS OF THE BREAST. By Wm. C. Bunce, M. D. From *Columbus Medical Journal*.

DILATATION OF THE PARTURIENT-CERVIX. By Wm. C. Bunce, M. D. From *The Cleveland Medical Gazette*.

WHAT CONSTITUTES "NORMAL LABOR?" By Wm. C. Bunce, M. D. From *The Cleveland Medical Gazette*.

PUERPERAL ECLAMPSIA. By Wm. C. Bunce, M. D. From *Columbus Medical Journal*.

ANESTHESIA OF THE TRUNK IN LOCOMOTOR ATAXIA. By Hugh T. Patrick, M. D., Chicago, Ill. From *New York Medical Journal*.

A YEAR'S WORK IN OPERATIVE GYNECOLOGY, Vol. II., 1896. By William H. Humiston, M. D.

ON CYCLONE NEUROSES AND PSYCHOSES. By Dr. Ludwig Bremer, St. Louis, Mo.

OXYGEN AS A DISTINCT REMEDY FOR DISEASE AND A LIFE-SAVING AGENT IN EXTREME CASES. By A. W. Catlin, A. M., M. D. From *The Brooklyn Medical Journal*.

RE-INFECTION IN CONSUMPTION. By Joseph Muir, M. D., New York. From *Journal of the American Medical Association*.

INTRABRONCHIAL MEDICATION. By Joseph Muir, M. D. From *American Medico-Surgical Bulletin*.

STATE SUPPRESSION OF INEBRIETY AND CURE OF INEBRIATES. By Dr. Everts.

THE ESSENTIAL PRINCIPLES OF STATE MEDICAL LICENSURE. Members of a Teaching Faculty ought not to accept appointments to membership in State Examining Boards.

THE MEDICAL LAW OF THE DISTRICT OF COLUMBIA. By H. M. Paine, M. D., Atlanta, Ga.

FIFTY YEARS OF EFFORT FOR ELEVATING AND UNIFYING THE STANDARDS OF MEDICAL EDUCATION. Culminating in the enactment of the New York Medical Law of 1896. By H. M. Paine, M. D., Atlanta, Ga.

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## **Society Reports.**

### **CLEVELAND MEDICAL SOCIETY.**

#### *Quarterly Meeting, March 26th, 1897.*

The tenth quarterly meeting of the Cleveland Medical Society was held in the rooms of the Chamber of Commerce, The Arcade, on Friday, March 26, 1897, and the special feature offered for instruction and entertainment was a lecture by DR. WM. S. THAYER, of Baltimore, Md., Associate Professor of Medicine at Johns Hopkins University, the subject being "A Summary of the Present Status of our Knowledge concerning Malarial Fevers."

The discourse was based upon investigations made in the laboratories at Baltimore and elsewhere, and dealt with the subject from a highly scientific standpoint. The subject was illustrated by drawings showing the peculiar modes of development of the animal parasites which are ascribed as the cause of malaria.

The doctor stated that much discussion had been recently indulged in as to whether malarial infection is borne in the air we breathe, or whether it is a water-bred disease. The facts are, he said, that no one has ever been able as yet to propagate the parasites of malaria artificially, outside of the body, and therefore nothing is definitely known as to its means of dissemination. Experiments made in an effort to produce the disease by different samples of water failed in Rome after continued experiments covering several months, the water being drunk in large quantities, and also given by enema. The disease may, however, be readily transmitted from one individual to another by means of intravenous inoculation.

In this connection the doctor remarked that one theory as to the dissemination of the malarial parasites was based upon the possibility of their being carried by mosquitoes, it having been proven that the parasites may be

kept alive for quite a length of time in other animal tissues, and may be carried by the mosquito or in the bodies of leeches. It is not altogether impossible that the mosquito may serve as an intermediate host. He most favored the theory of malarial infection through the atmosphere.

The periodicity of malaria was accounted for by the fact that a definite length of time is required for the propagation and setting free of the embryonic germs or sporules, which are liberated immediately before a paroxysm of fever or a chill, and the paroxysm is probably due to toxins generated by the germs and set free at the time of sporulation. The three principal varieties of this parasite are classified under the headings tertian, quartan and estivo-autumnal. The first two varieties act more especially in connection with the blood corpuscles, producing their destruction and death, while the estivo-autumnal variety is more active in deranging the functions of the viscera, such as the gastro-intestinal mucosa, bone marrow, liver, spleen, lymphatics, and the nervous system. This variety being much less amenable to treatment by quinin than the first two varieties mentioned, patients thus affected become very anemic. Quinin was believed to prevent the exacerbations of intermittent fever if given just prior to the chill, on the theory that sporulation takes place at this time, and that the sporules are at once killed by the medicine before they have time to enter other corpuscles of the blood.

Quinin was believed to be a valuable agent for making a diagnosis in fevers, and the statement was made that if the condition is not affected materially by the use of quinin within four days it is not malarial fever. The doctor believes that there is no such thing as typho-malarial fever, and that fevers commonly classed under the head of typho-malarial, continuing over four days unaffected by the proper use of quinin, are in reality true typhoid.

It is entirely out of the question to represent fairly the valuable points given in the lecture by a casual review, but it may be said that much good work has been done by Dr. Thayer and much may be expected in the future.

The paper was discussed by Drs. Tuckerman, Dutton, Kelley, Smith, of Collinwood; Humiston, Campbell, and by Dr. Thayer in closing.

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An interesting clinic was held by Dr. Thayer at the Cleveland General Hospital, Saturday morning, March 27th, which was attended by many members of the society.

## Notes and Comments.

**The Commencement Exercises of the Cleveland College of Physicians and Surgeons**, Medical Department of Ohio Wesleyan University, were held on Wednesday evening, March 17th, in the first Methodist Church, at the corner of Euclid avenue and Erie street. The church was very prettily decorated with cut flowers and hot-house plants, and excellent orchestral music was furnished by the Junior class. Rev. Dr. Gilbert, pastor of the church, opened the exercises with prayer. Dr. C. B. Parker, dean of the college, then introduced the acting President of Ohio Wesleyan University, William G. Williams, D. D., as president of the evening. The annual address was delivered by Dr. Joseph M. Mathews, Professor of Surgery and Diseases of the Rectum in the Kentucky School of Medicine. He was introduced as "equally famous as author, editor and orator," and well sustained his reputation for oratorical ability. A report of his address appears in this number of the GAZETTE.

The dean, Dr. C. B. Parker, followed with appropriate remarks, after which President Williams conferred the degree of Doctor of Medicine upon the following ladies and gentlemen:

Vlasta Y. Bejcek, Horace C. Bliss, Charles A. Bolich, Irving Sylvester Bretz, S. P. Burstein, Frank Solon Carroll, Henry K. Chakijian, Morris Coplan, William P. Dunlany, John M. Firmin, A. B.; Robert Fischer, M. Isabella French, Ph. B.; M. Catherine Goodwin, Harry P. Hanson, Frank Ward Hickin, W. Rush Hockenberry, Joseph W. Hodgson, John P. Klasen, Joseph Henry Kozar, Alexander W. Lueke, Thomas C. Martin, M. D.; Alfred Samuel Maschke, Charles F. Nelson, Nathan Rosewater, Ph. G.; Robert Gilcrest Schnee, Morris Schott, Jessie Fremont Shane, Arthur Julius Skeel, A. Louie Smith, Hubert de Lassere Spence, M. D.; Robert Turner Tarr, Edward Arthur Wheaton, William Dennison Wise.

After the exercises, Dr. and Mrs. Parker entertained the members of the faculty with their wives and the graduating class at their Euclid avenue residence, in honor of acting President Williams.

**The Annual Meeting of the Alumni Association of The Cleveland College of Physicians and Surgeons** was held March 17, at 3 P. M., in the amphitheater of the Cleveland General Hospital. First Vice-president Dr. Wood presided. The minutes of the previous meeting were read and approved. On motion of Dr. Hough, of Cuyahoga Falls, the name of the association was changed from the Medical Department of the University of Wooster to its

present name. In the absence of the treasurer no financial report was made. A number of interesting letters, from absent members of the association, were read by the secretary. Within the past year the society lost by death two of its most prominent members—Dr. O. G. Selden, of Catskill, N. Y., class of '67, and Dr. S. M. Wilkins, of Eaton Rapids, Mich., class of '66.

Dr. Hough related some reminiscences of Dr. Selden, who was a classmate of his. Dr. Williams, acting President of Ohio Wesleyan University, addressed the association and welcomed the nine hundred doctors of whom the association is composed into the University, and expressed the belief that great advantages to both would accrue from this union.

The association was also favored by short addresses from Dr. Criss, of Pittsburg, Pa., Dr. S. P. Snyder, of New Bedford, O., and Dr. Thos. C. Martin, of Cleveland.

The following officers were elected for the ensuing year: President, Dr. B. B. Loughhead, Hudson, O.; first Vice-president, Dr. Wm. O. Jenks, Nottingham, O.; second Vice-president, Dr. Wm. C. Bunce, Oberlin, O.; third Vice-president, Dr. Jno. D. Criss, Pittsburg, Pa.; fourth Vice-president, Dr. C. I. Anders, Ft. Seneca, O.; fifth Vice-president, Dr. A. L. Smith, Cleveland; Treasurer, Dr. Chas. L. Hintzelmann, Cleveland; Secretary, Dr. W. E. Lower, Cleveland.

**The Monthly Report** of the State Hospital at Cleveland has just been presented. Number of patients in hospital Feb. 15, 1903; admitted during month, 29; discharged, 13. Of the 13 discharged cases 4 have died, 8 recovered and one improved. Total number in the asylum March 15 was 1109.

**The Commencement Exercises** of the State Hospital training school for nurses will be held April 20. Judge White and President Gessman, of the board of trustees, are to be the speakers.

**Sir Joseph Lister's** elevation to the peerage is the first instance of such recognition of a member of the medical profession.

**Prof. Behring**, of Marburg, Germany, has received the Rinecker prize of a gold medal and \$250 from the University of Würzburg for the most important discovery in the medical world in the last three years, the antitoxin treatment of diphtheria.

**"The First Fine for Spitting in the Cars"** was imposed on Tuesday last upon a man in this city who violated the health ordinance. The man pleaded ignorance of the



law but without avail."—*Medical Record*. The passage and enforcement of such a law in Cleveland would be a notable step in the direction of better protection for the community in sanitary matters.

**Dr. Charles G. Foote** had charge as House Surgeon of the Cleveland General Hospital for several days in March.

**At a Meeting of the Medical and Surgical Staff** of the Cleveland General Hospital, held on March 20th, the following elections were made: Chief of staff, Dr. C. B. Parker; Vice-president, Dr. A. R. Baker; Secretary, Dr. George W. Crile; and Chief of druggists, Dr. J. F. Hobson. An entire new house staff was elected as follows: Drs. Alfred S. Maschke, Charles Bolich, F. W. Hickin and Alexander Lueke.

**Dr. C. I. Anders**, of Ft. Seneca, visited in Cleveland for several days in March.

**The Celsus Club**, an organization composed of young physicians of Akron, has been prosecuting illegal practitioners of their city with much vigor, and though receiving some discouraging setbacks they keep pounding away. "Dr." Eugene Eastman, an "Osteopath," was arrested some time ago and fined \$25 and costs by Mayor Harper for practising without a license. An appeal was made and Judge Kohler, on March 27th, handed down a decision reversing the lower court and declaring that the Mosgrove law cannot be construed so broadly as to cover faith cure, massage treatment, Christian science, or any other forms of treatment in which medicine is not used. The case is to be carried to the Circuit Court.

**Dr. Friedrich von Esmarch** and his wife have just celebrated their silver wedding. Professor von Esmarch served in the German wars of 1866, and 1870-71. After his retirement from the army he was made a professor in the University at Kiel, where he has performed more than 14,000 operations, as shown by the clinical records.

In 1872, he saved the life of Princess Henriette Elizabeth of Schleswig-Holstein, by a skillful operation, whereupon the Princess bestowed her hand upon him.

**Dr. C. W. Dellenbaugh** visited at Saegerstown, for a few days in March.

**Hospital Benefit.** Miss Olga Nethersole, assisted by several members of her company, and local talent, gave a literary and dramatic entertainment at Association Hall, on the afternoon of March 11th, for the benefit of the Cleveland General Hospital. A very fashionable audi-

ence completely filled the hall and the hospital received a neat sum for the furtherance of its charitable work. On the evening of the same day the nurses of the hospital, in costume, occupied one of the boxes at the Opera House, and saw Miss Nethersole in "Carmen."

**Dr. Alan N. Dennison** has removed to the corner of Willson avenue and Prospect street.

**Dr. Morris D. Stepp** has returned from Vienna and has a temporary office at 7 Minnesota street.

**Dr. William Paull Howell**, of Philadelphia, died at Saranac Lake, in the Adirondacks, on March 20th, of tubercular laryngitis, and was brought to Cleveland for interment. He was a young man of fine education, a graduate of the University of Pennsylvania, 1889, and had acquired a wide experience in hospital and dispensary practice.

**Dr. and Mrs. C. B. Parker** have been taking a pleasure trip to the Pacific Coast.

**The Mahoning Valley Hospital Association** is the name of a newly formed stock company who are interesting themselves in a hospital in Youngstown. They have rented the Tod residence on Holmes street, and expect to have the new hospital open by April 15th. There will be a dispensary attachment.

**Dr. Robert Price, of Canal Dover**, has been appointed medical examiner of the Pennsylvania Company's lines, with headquarters at Pittsburg, to take effect March 20th.

**Drs. T. Clark Miller and D. S. Gardner**, of Massillon, are candidates for the post of Superintendent of the Massillon State Hospital.

**The Appointment of Dr. H. H. Baxter**, homeopath, of Cleveland, to be a member of the State Board of Medical Registration and Examination has just been announced by Gov. Bushnell. At the time of the organization of the board, the eclectics numbered more than the homeopaths and were given two members and the homeopaths one. This year the homeopaths are in the majority and so were entitled to the vacancy created by the expiration of the term of an eclectic. The board now numbers three regulars, two homeopaths, one physio-medical and one eclectic.

**The American Medical Journalist** is one of the brightest and most welcome of all the periodicals that come to our desk. It is a journal for journalists, be they editors or publishers, and is also of great use and interest to adver-

tisers and authors. If the reader outside of journalistic work sees fit to pay his dollar and become a subscriber he can acquire thereby a deal of handy information, and will, we hope, learn better to appreciate the labors of the editors and publishers of medical journals. These, we fancy, have been too often underestimated by the average reader, who does not pause to consider the value of the journalists' efforts, or the powerful part that has been played by journalism in modern professional progress.

**The Akron Hospital** is undergoing extensive repairs and the addition of another story.

**The Ohio State Pediatric Society** is to meet in Cleveland on May 18th. Although this is only its third annual meeting, there are already on the program as many papers and discussions as has the Pediatric Section of the American Medical Association. The subjects are in great variety, and will be presented by men from different parts of the State, with a few from adjacent States who have become members. Any regular physician in good standing who is interested in the study of children is eligible to become a member. The President is Dr. S. W. Kelley, of Cleveland; Vice-president, Dr. J. P. West, of Bellaire; Chairman of Council, Dr. J. M. Dunham, of Columbus; Secretary, Dr. G. M. Clouse, of Columbus. Dr. D. S. Hanson, of Cleveland, is chairman of the local committee of arrangements. Programs will be issued in due time.

**The Ohio State Medical Society** is preparing a fine program. The indications point to a very large attendance this year, the meeting to be held in Cleveland on May 19th, 20th and 21st. The Grays' Armory will be the place of meeting, the sessions being held on the upper floor, while the lower floor will be given over to the exhibits of the pharmacists, instrument makers, etc. Dr. F. C. Larimore is president, Dr. Thomas Hubbard, of Toledo, secretary. Dr. Wm. H. Humiston is chairman of the committee of arrangements. The complete program will be announced about May 1st. Dr. Henry O. Marcy, of Boston, and Dr. D. N. Kinsman, of Columbus, will deliver addresses on Wednesday evening. One afternoon will be devoted to clinics at the various hospitals.

There will be a banquet and probably a ball following. Also a lake excursion if the weather is fine. If Lake Erie is not in an amiable mood, there will be a trolley train excursion and other pleasant affairs to entertain the visiting doctors.

**Medical Practice in England** seems to be about run into the ground, according to the newspapers. A potato

merchant over there offers free medical attendance and medicine to all customers purchasing his potatoes.

**A Dangerous Precedent** has been established by the Supreme Court of Wisconsin. On Feb. 23rd, it affirmed the decision of the Rock County Circuit Court holding that the rule of the State Board of Health promulgated in 1894 requiring all children attending school to be vaccinated is invalid. The case was that of E. V. Adams, of Beloit, who brought a writ of mandamus to compel the school board to allow his children to attend school without being vaccinated. The Circuit Court granted the writ and, as stated, the Supreme Court affirmed the decision. This goes to prove that the fools are not all dead yet; but such epidemics as that which lately occurred at Gloucester make up for a good deal of lost time.

**Secretaries of Medical Societies** are requested to forward at once, lists of their delegates to the American Medical Association, to the Permanent Secretary, Dr. Wm. B. Atkinson, 1400 Pine street, Philadelphia.

**Dr. L. M. Reamy**, one of Zanesville's old and respected physicians, brother of Dr. Thad. Reamy, of Cincinnati, has been ill for about one year, with no improvement.

**The Principal Addresses** before the American Medical Association this year will doubtless be masterly productions. The Presidential address will be by Dr. Nicholas Senn, the address on Surgery by Dr. Wm. W. Keen, the address on Medicine by Dr. Austin Flint, and that on State Medicine by Dr. John B. Hamilton.

**The Medical Society of the State of Pennsylvania** will hold its 47th annual meeting in Pittsburg on Tuesday, Wednesday and Thursday, May 18th, 19th and 20th.

**The Eastern Ohio Medical Association** will hold its next meeting April 20th, '97. First on the program will be the banquet, followed by an address by President elect W. M. Calhoun, M. D., East Liverpool, O., on the subject of "The Necessity of an Organized Profession." Toasts will be responded to by various members, as follows: "The Country Doctor," G. H. Colville, M. D., Harrisville, O.; "The Doctor as an Educator," H. W. Nelson, M. D., Steubenville, O.; "The Doctor as a Politician," S. B. McGarran, M. D., Cadiz, O.; "Professional Tact," W. R. Clark, M. D., East Liverpool, O.; "What Constitutes a Medical Education," Tom B. Marquis, M. D., Lisbon; "Behold how Good and how Pleasant it is for Brethren to Dwell Together in Unity," J. S.

McClellan, M. D., Bellaire; "A Good Dinner and How to Digest It," Dr. J. A. Hobson, Flushing; "For never yet hath one attained to such perfection, but that time and place, and use, have brought addition to his knowledge," A. A. Elliott, M. D., Steubenville. Toastmaster, Dr. J. C. M. Floyd, secretary, Steubenville.

**Dr. H. L. Sutton**, of Zanesville, is down with typhoid fever.

**Words of Approbation** and appreciation come to the GAZETTE unsolicited from various parts of the country. Prof. Rudolph Matas writes from New Orleans \* \* \* "Please accept my congratulations on the merited success of your brilliant publication."

**The North Central Ohio Medical Society** held its sixteenth annual (sixty-fourth quarterly) meeting at Mansfield, on March 26th. Dr. D. N. Kinsman, of Columbus, gave a lecture on "Diphtheria," followed by "Reports on Diphtheria," by Dr. A. M. Duncan, who collected cases from the Bucyrus physicians, and by Dr. John Maglott, who collected from Mansfield physicians. A paper on "Puerperal Eclampsia and Mania, with Report of a Case," was presented by Dr. J. Lillian McBride, Mansfield, and an address by the retiring president, Dr. H. H. Smith, of Lexington. Dr. A. Rhu, Marion, was elected President; Dr. W. E. Laughridge, Mansfield, Vice-president; Dr. J. Lillian McBride, Mansfield, Secretary; Dr. A. H. McCullough, Mansfield, Treasurer. The next meeting will be held in Mansfield, in June.

**Dr. J. A. McCullough** and family, of Steubenville, sailed for England on April 1st. They will spend several months there and on the Continent.

**Medicine and Miracles in Spain.** The recent appointment of John Hay as ambassador to the Court of St. James has reawakened interest in his literary work, which some years ago attracted wide attention by its own merits. The following extract is from his "Castilian Days:"

"Whether it be from their more regular and active lives, or from their being unable to pay for medical attendance, the poorer classes suffer less from sickness than their betters. An ordinary Spaniard is sick but once in his life, and that once is enough,—'t will serve. The traditions of the old satires which represented the doctor and death as always hunting in couples still survive in Spain.

"It is taken as so entirely a matter of course that a patient must die, that the law of the land imposed a heavy fine upon physicians who did not bring a priest on their

second visit. His labor of exhortation and confession was rarely wasted. There were few sufferers who recovered from the shock of that ghastly mummery in their chambers. Medical science still labors in Spain under the ban of ostracism, imposed in the days when all research was impiety. The Inquisition clamored for blood of Vesalius, who had committed the crime of a demonstration in anatomy. He was forced into a pilgrimage of expiation, and died on the way to Palestine.

"The church has always looked with a jealous eye upon the inquirers, the innovators. Why these probes, these lancets, these multifarious drugs, when the object in view could be so much more easily obtained by the judicious application of masses and prayers?

"So it has come about that the doctor is a Pariah, and miracles flourish in the Peninsula. At every considerable shrine you will see the walls covered with waxen models of feet, legs, hands and arms, cured by the miraculous interposition of the *genius loci*, and scores of little crutches attesting the marvelous hour when they became useless. Each shrine, like a mineral spring, has its own especial virtue. A Santiago medal was better than quinine for ague. St. Veronica's handkerchief is sovereign for sore eyes. A bone of St. Magin supersedes the use of mercury. A fingernail of San Frutos cured at Segovia a case of congenital idiocy. The Virgin of Oña acted as a vermifuge on royal infantas, and her girdle at Tortosa smooths their passage into this world. In this age of unfaith, relics have lost much of their power. They turn out their score or so of miracles every feast day, it is true, but are no longer capable of the *tours de force* of earlier days.

"Cardinal de Retz saw with his eyes a man whose wooden legs were turned to capering flesh and blood by the image of the Pillar of Saragossa, but this was in the good old times before newspapers and telegraphs had come to dispel the twilight of belief."

**The National Confederation of State Medical Examining and Licensing Boards** is to be held in Philadelphia Monday, May 31st, 1897. The president is Dr. Wm. W. Potter, of Buffalo, N. Y., and the secretary, Dr. A. Walter Suiter, of Herkimer, N. Y., of whom further information may be obtained.

**A Statue of the late Prof. Samuel D. Gross, M. D.**, which is to stand near the Army Medical Museum, Washington, D. C., is to be unveiled on Wednesday, May 5th, 1897. The American Surgical Association and the Alumni Association of Jefferson Medical College, of Philadelphia, have the affair in charge.

**Dr. Rosa Lee Ozer** (Cleveland College of Physicians and Surgeons, class of '96) has charge of a Girls' Orphanage in Mahoba, N. W. P., India. The orphanage now contains about a hundred children taken from starved or starving parents.

**Reunited Fractured Human Tooth.** In December, 1888, Mr. W. E. Harding extracted an upper incisor which had been fractured, from the mouth of a girl seventeen years of age. The history of the patient was that some ten months previously she had fallen down, striking the tooth and driving it high up in the socket. It became impacted and remained fixed in its position, causing more and more irritation up to the time that Mr. Harding saw it. The pain gradually became so intense that there was nothing to do but to remove the tooth. He then discovered that it had been fractured across the crown, in a direction obliquely upward and backward. I was asked to make a microscopic examination of the specimen, and therefore removed a vertical section from front to back of the tooth, and the slide now exhibited shows the two outer halves remaining. It was seen that the broken portions of the specimen, though separated by a considerable interval, were firmly knit together by some calcified material which occupied the central portion of the gap. The margins of the space, however, being occupied by a substance of leathery consistence, were not calcified at all. Examined microscopically, the uniting substance was seen to consist of a calcified material of a spongy or cavernous character, with numerous spaces for blood-vessels. The cavernous spaces had apparently been occupied by a substance somewhat resembling pulp, though I do not wish to affirm that it was pulp. In various positions slight absorption of the edges of the normal dentine has taken place, the spaces thus formed being filled up by cementum showing well-marked lacunæ and canaliculi. The amount of cementum, however, is not very great.

The next slide is a magnification showing the intermediate tissue. Spaces are seen which have been occupied by blood-vessels, and from the black masses little tubes here and there may be seen passing, but there is no space where one can make out a distinct brush of tubes going off, as one would expect if a mass of dentine were present.

The next slide shows a smaller portion of the same thing more highly magnified, but I do not know that it adds any greater amount of clearness to the idea of the specimen. An examination of the specimen suggests to one's mind two different sources for the supply of this new material, either pulp or periosteum. The pulp was

exposed, but only to a very slight extent, and of course it is possible to imagine that enlargement took place, that the overgrowth of the pulp filled up the space between the two fragments somewhat similarly to the way that chronic enlargement occurs in cases of polypus of the pulp, and that ultimately this calcified.

On the other hand, we have evidence that there is cementum in the section, lacunæ and canaliculi being present in certain parts in rather large numbers, and we have not the evidence of any definite dentine structure asserting itself. We know that bone may be produced from many tissues other than those which naturally give rise to it. We have here, I think, a case in which hemorrhage having taken place, a natural capping of the exposed pulp occurred, somewhat similarly to the way a wound heals under a scab. Blood was poured out between the fragments, organization took place, numerous blood-vessels were produced, and ultimately calcification occurred; and eventually, if it had been left long enough, I think the whole of the space would have been filled up with calcified material more or less resembling bone, or bone and cementum together. There are many specimens described where cementum has united a fractured tooth in the root, but I think we have here to do with a specimen unlike any other that has been figured or described, in so far as the cementum has been deposited between the fractured portions of the crown.—Mr. Storer Bennett in the *International Dental Journal*.

**Puerperal Eclampsia; its Etiology and Treatment**, was the title of a paper read by Dr. William Warren Potter, of Buffalo at the ninety-first annual meeting of the Medical Society of the State of New York, Albany, January 26, 1897.

He said, *inter alia*, that we seem to have arrived at the renaissance of eclamptic literature, that while the subject is being discussed in magazine articles and societies it would not answer for this society to keep silent.

Though the pathogenesis of eclampsia is still unsettled we are certain that it is a condition *sui generis*, pertaining only to the puerperal state, and that to describe, as formerly, three varieties—hysterical, epileptic and apoplectic—is erroneous as to pathology and causation, as well as misleading in treatment.

The kidney plays an important office in the economy of the eclamptic. If it fails to eliminate toxins, symptoms are promptly presented in the pregnant woman. Renal insufficiency is a usual accompaniment of the eclamptic state. Overproduction of toxins and under-elimination by the kidney is a short route to an eclamptic



seizure. However, many women with albuminuria escape eclampsia and many eclamptics fail to exhibit albuminous urine.

The microbic theory of eclampsia has not yet been demonstrated. The toxemic theory in the present state of our knowledge furnishes the best working hypothesis for prevention or cure.

Treatment should be classified into (a) preventive, and (b) curative. The preventive treatment should be subdivided into medicinal and hygienic; and the curative into medicinal and obstetric. A qualitative and quantitative analysis of the urine must be made at the onset. If there is defective elimination something must be done speedily to correct a faulty relationship between nutrition and excretion. One of the surest ways to control progressive toxemia is to place the woman upon an exclusive milk diet. This will also serve to flush the kidneys and thus favor elimination. Distilled water is one of the best diuretics; it increases activity and supplies material—two important elements. In the pre-eclamptic state, when there is a full pulse with tendency to cyanosis, one good full bleeding may be permissible, but its repetition should be regarded with suspicion. If there is high arterial tension—vasomotor spasm—glonoin in full doses is valuable.

When eclampsia is fully established the first indication is to control the convulsions. Full chloroform anesthesia may serve a good purpose. If the convulsions are not promptly controlled, the uterus must be speedily emptied. This constitutes the most important method of dealing with eclampsia. Two lives are at stake, and by addressing ourselves assiduously to speedy delivery of the fetus we contribute in the largest manner to the conservation of both.

Rapid dilatation, first with steel dilators, if need be, then with manual stretching of the os and cervix, followed by the forceps, is the nearest approach to idealism. Only rarely can the deep incision of Dührssen be required. Cæsarean section should be reserved for extreme complications, as deformed pelvis, or to preserve the fetus when the mother's condition is hopeless. *Vera-trum viride* is dangerous, uncertain and deceptive in action.

In eclampsia of pregnancy, *i. e.*, prior to term, the aseptic bougie, introduced to the fundus and coiled within the vagina, may be employed to induce labor. Finally, to promote the elimination of toxic material, diuresis, catharsis and diaphoresis should not be forgotten; neither should the hot air bath, nor the hot pack be overlooked.

## Abstract.

NOTES ON THE TREATMENT OF FECAL FISTULÆ, abstracted from the *Medical Record* of October 24th, 1896.—At the thirteenth annual meeting of the New York State Medical Association, which was recently held in New York City, Dr. Frederick Holme Wiggin, of New York county, presented a paper with the above title. The chief cause of the occurrence of fecal fistula was stated to be the delay in resorting to operative measures to which patients suffering from typhlenteritis, or strangulated hernia, were frequently subjected while their ailment was carefully diagnosed. The view recently advanced by a writer on the subject under consideration, that the best treatment for this condition consisted in its prevention, was concurred in. But in the case in which this mishap had occurred, it was pointed out that if the opening was of small size, was located near or below the ileo-cæcal valve and no obstruction to the fecal current existed, operative measures might be deferred, as in most instances the opening would close in a short time spontaneously. On the other hand, if the bowel opening was of large size, was situated laterally, or some distance above the ileo-cecal valve, and was accompanied by the escape of a large proportion of the contents of the bowel, operative procedure for the closure of the opening should be speedily undertaken.

The histories of three cases, successfully treated by surgical measures, were cited. In two instances, the patients were inmates of the Hartford (Connecticut) Hospital, and were operated upon by Dr. Wiggin, by reason of an invitation which was extended to him by the medical board of that institution, after several previous unsuccessful efforts to close the bowel openings had been made. The occurrence of the fistulous opening was due in the first case to failure, and in the second case to delay in resorting to surgical treatment of typhlenteritis, from which disease both patients originally suffered. In the third case, the bowel opening was caused either by the pressure of the gauze used to drain the abscess cavity, or by an ulcerative process which originated from within the gut. In the first case, as the opening in the bowel was of large size, irregular in shape, and the gut was thickened and friable, the diseased portion of bowel containing the opening, about four inches in length, was excised, and the divided ends joined by the suture method of Maunsell. In the second and third cases, the bowel openings were situated in the head of the colon, and were in both instances closed by means of several rows of sutures,

after which the omentum was drawn over the former site of the fistula, and retained in position by sutures.

In describing the technic employed, the writer laid much stress upon the following points, viz.: the thorough disinfection of the parts, including the interior of the bowel, with hydrozone, the closing of the intestinal opening, when possible, before the breaking up of the peritoneal adhesions, and the opening of the general cavity, the removal of any existing obstruction to the fæcal current, the disinfection of the bowel surface with a solution of hydrozone, before and after the placing of the sutures, the control of oozing from the cicatricial tissue by the same means and the closure by a single row of silk-worm gut sutures without drainage of the abdominal wound after the washing of the peritoneal cavity with saline solution, some of which is allowed to remain.

In concluding, the writer stated that ever since September, 1893, when he had proved the value of hydrogen dioxide as an effective antiseptic, which in proper solution did not unduly irritate the peritoneum, when followed by a six-tenths per cent. saline solution, he had had little reason to fear the danger of causing septic peritonitis from the accidental escape of pus or fecal matter while operating; and that when this complication had occurred, it had been invariably successfully met by the use of hydrogen dioxide in the manner described in the paper. He advised the excision of the diseased portion of the gut in those instances where it had become much thickened and friable, and expressed the belief that with a clearer understanding of the objects to be attained by operation—*i. e.*, the restoration of the integrity of the intestinal canal, as well as the closure of the opening in the bowel—future operations for the cure of fecal fistula would more frequently result successfully than they had in the past.

The paper was discussed at some length by Dr. H. O. Marcy, of Boston, and Dr. Joseph D. Bryant, of New York county, who commended it, and in the main, they endorsed the writer's views.

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EVERY MEMBER OF THE OHIO STATE MEDICAL SOCIETY ought to be a subscriber to the GAZETTE. The May number will contain interesting matter relative to the society and its coming meeting in Cleveland, and the following issues will contain careful and thorough reports of the sessions, in addition to a due proportion of interesting and valuable matter in the regular departments. We ask those who may receive this number as a sample copy to look over our premium and club offers and take advantage of one or the other by subscribing immediately.





*June 1894*

*H. L. Larimer*



### Original Articles.

#### SIMULATED PSYCHOSES WITH REFERENCE TO DIAGNOSIS.\*

BY HENRY C. EYMAN, M. D.,

Professor of Mental and Nervous Diseases in the Cleveland College of  
Physicians and Surgeons, Superintendent of the Cleveland  
State Hospital for the Insane.

Feigned insanity dates back as far as the history of the disease itself. Probably the earliest reference to the existence of mental disease is the alleged feigned insanity of Ulysses, who, having a lovely and loving wife and young son, was loth to embark in the expedition planned by Palamedes, and therefore pretended madness. It is related that he yoked together an ass and an ox and began to plow and sow salt. The insanity, however, being sudden and of such extraordinary manifestations, its genuineness was suspected, and to test it his son was placed before the plow. Ulysses skillfully turned the plow aside and avoided injuring his son, whereupon the learned jurists immediately decided that he was shamming and pressed him into service.

It is also related that David feigned dementia, and as his knowledge of the world was more extensive than was that of Ulysses, so his simulation was more effective. He evidently fooled King Aschish, for he turned to his servants and said, "Lo, ye see the man is mad; wherefore, then, have ye brought him to me?" David's feigning

\* Read before the Medico-Legal Section of the Cuyahoga County Medical Society.

consisted almost entirely of his scrabbling on the doors and letting his spittle fall down upon his beard.

The forms of insanity mentioned in the early histories were remarkable, and the manifestations of the insane ludicrous in the extreme. Either the manifestations are vastly changed or the madness mentioned in Grecian mythology was frequently simulated. You will remember that the three daughters of Proetus became insane in consequence of neglecting the worship of Bacchus. They ran about the fields believing themselves to be cows, and fled away that they might not be harnessed to the chariot or plow. Now it is further related that Melampus cured this disorder by administering large doses of hellebore. If such manifestations and such reported cures were to be published to-day, we should at once assume that the insanity was feigned, and that Dr. Melampus had failed to register. But, in that day as this, the pretended insanity was not confined to the person afflicted. Athamas, King of Thebes, pretended that his wife was insane in order that he might marry Ino.

It is a time-honored saying, however, that the counterfeit proves the real, and consequently the early history of mental disease is proved by the efforts at simulation. The detection of feigned insanity is one of the most important points in the diagnosis of mental disease. At the present day, however, we would scarcely assume that a man was feigning insanity because he had sufficient intelligence to recognize and avoid the destruction of his own son. The madness of Ulysses, however, was manifested in very much the same manner as feigning madmen of to-day. They imagine they must do something outrageous and absolutely ridiculous to manifest the peculiarities characteristic of insanity. Usually the extreme degree of solicitude for attracting attention to their peculiarities at once suggests to the experienced alienist the idea of deception.

The first and most important fact to remember in examining a patient suspected of feigning insanity is that the insanity must be of some particular type. True, we have what is known as confusional insanity, where all forms seem to be intermingled more or less; but in those cases the physical disturbance is usually sufficient to allow an almost positive diagnosis.

The form of insanity most often simulated is mania. When this is so, the man howls, raves, distorts his features and his postures, and often commits acts of violence and destructiveness.

He may have had the opportunity of observing cases of insanity, and if so he may imitate them so that he may fool the ordinary observer. If, however, the case is closely observed for several days, the simulation becomes apparent. The drain upon the system is so great that the simulator becomes exhausted and soon falls into a natural sleep. In real cases of acute mania there is also more or less febrile disturbance, furred tongue, parched lips, harsh and dry, or pallid and clammy skin, and long-continued insomnia which cannot be successfully imitated. If your patient should be howling and raving and incoherent, the state of the skin alone will suffice to detect the pretender. If he should be healthy, such conduct would likely produce profuse sweating. In an insane man the skin would be either harsh and dry, or if moist would be cool and clammy.

It has been said that the two most remarkable pictures of insanity as painted by Shakespeare were feigned madness. Many pages have been written pro and con as to the insanity of Hamlet, but if mad there was certainly much method in his madness. The writer believes that he was really much depressed in spirits and melancholy, but that the more distinct phases of his insanity were purely feigned. Edgar, in "*Lear*," also feigned insanity to escape the persecutions of his brother Edmund. These were both simulations of the form of insanity known as mania with hallucinations and delusions such as are common in chronic maniacs. It is perhaps a fortunate thing for psychologists that feigned insanity is almost wholly confined to the illiterate and vulgar, else the detection might not be so easily accomplished. Often the fear of detection will lead them to deny the most reasonable requests, and give answers to questions in so ridiculous a manner as at once to excite suspicion. Sometimes they say they cannot read, and if given a book or paper will make manifest effort to place it upside down; they will tell you they cannot count ten, and make real efforts to answer every question wrongly; whereas any really in-



sane man will be able to answer correctly a great majority of the questions put to him. Dr. Snell, in the *Zeitschrift*, says the "patients suffering from real insanity are able to answer common questions put to them," and that common people have not the slightest rational idea of insanity; they believe that all mental manifestations are completely altered in it and that an insane person knows nothing; he ceases to read, to write, and to reckon; and that all his relations and conditions are completely reversed. Hence it happens that all uninformed people find it difficult to acknowledge actual insanity. When they speak of an insane person they say he is not mad, that he knows every one about him, and that he altogether conducts himself like a reasonable man, only that he shows some peculiarities. Uneducated people have an idea that an evil spirit, as it were, takes possession of an insane man and drives out his being with altogether new and perverted elements. Where they observe memory, reflection, feeling of right and wrong, they think that insanity cannot exist; and yet among the insane all these things are seldom wanting and often exist in a high degree. On this rock simulators generally shipwreck, if they attempt a part at all active.

But it is more difficult to form a judgment, if the simulator preserves a complete passiveness and an obstinate silence. It is not impossible that, by these means, insanity may be simulated with success; yet in order to do so the simulator must possess a rare strength of will, in order through all observations and tests to preserve his rôle.

Together with the honored president of this body I was called to the county jail a few years ago to examine a man indicted for complicity in murder. The man had, for a period of nine months, refused to utter a word, and all attempts of those around him failed to arouse him from his apparent lethargy. His appetite was good, he slept well, and did not allow his insanity to interfere materially with his bodily comforts. He had been examined several times by skilled physicians, but with negative results. A short time before the day set for his hearing, it was thought best to declare him insane and have him sent to the State Hospital. Upon the invitation of the prose-

cuting attorney, Dr. Holliday and myself visited him in his cell. Of course we first made a very careful examination for possible physical ailment. We found everything normal. In fact, had he been examined for life insurance, he would have been pronounced a first-class risk. Eyes normal, skin normal, temperature normal—in fact, nothing to indicate so serious a mental disease. We made frequent efforts to get him to speak, but without avail. He was taken out into the corridor of the jail and told to walk briskly, which he did without halt or faltering. Still no sign of intelligence, except that he would obey our commands. He was taken to the farther end of the corridor, away from the penetrating glare of the turnkey, and confidently told that we were his friends, and if he were really sick would help him. There was a rapid glance into our face, an expression of inquiry in his eye, followed instantly by one of doubt and a relapsing into his former state. We thereupon asked that he be returned to his cell, as it was certain that no further information could be gleaned at that time. The next day at about the same time we again presented ourselves at the jail. At first he refused to come from his cell, but upon being urged came out walking very slowly, and while Dr. H. advanced to greet him, cast at me another quick glance curiously intermingled with inquiry and suspicion. The same tests were again thoroughly applied.

He remained obstinate as to talking, but appeared wary and suspicious, and instead of the apathy of the day before, we now found caution and an effort to deceive. Again was he asked to confide in us, and told that we could surely be of service to him, were he really sick; but while we were constantly being confirmed in the opinion that he was feigning, yet not one word would he utter. Our examination and observation continued for more than two hours. We were finally convinced that he was pretending, and placing our hands upon his shoulders and looking him steadily in the eye, said to him: "We have examined you carefully on two separate occasions, and are both positive in our opinion that you are not ill; that you have been for more than nine months trying to deceive those about you; that if called upon we shall be compelled to go into court and so testify; that

our report to the prosecuting attorney will be to this effect, and that if you persist in your obstinacy you will probably receive the full penalty of the law." We left him in charge of the turnkey and were afterwards informed that we could not have reached home before he asked the jailer what he thought they would do with him. The jailer said to him: "Oh, you can talk now, can you? Why did you not talk before?" He replied: "Why, you see, there was an electric wire in my cell holding my tongue, but these last doctors cut the connection and now I can talk." He sent for his attorney, and on the next Monday went into court and made the plea of guilty of murder in the second degree, which was accepted by the prosecuting attorney, and he was sentenced to the penitentiary for life without further trial.

Another case equally marked was that of Mr. W., arrested for horse stealing in an adjoining county. While in jail he became obstinate, unruly and destructive. The sheriff suspected that he was feigning and had him watched carefully for several days, though he failed to secure convincing proof of his theory. No less than four of the most learned physicians of the city examined him, not once but often, and while they all suspected that he was feigning, yet were finally compelled to change their opinions. He was accordingly adjudged insane and committed to the State Hospital.

Fortunately I was not in the office when he was received, so that he did not then see me. The next day I visited the wards and asked the attendant to pay no attention to me until I had an opportunity of observing him. He was sitting quietly on one of the benches, evidently watching with considerable interest the peculiarities of those about him. After watching him for several minutes, I motioned the attendant to call my name as though he had just seen me. He did so and immediately Mr. W. was all attention.

I avoided openly observing him for several minutes, and noticed that his nervousness increased all the time. Finally, when I reached his side and spoke to him he seemed to be having a nervous chill, and was unable to answer at all. He was questioned on various subjects, but could give no rational answers. We did not pursue

the investigation further at this time, but next day quietly slipped into the ward again and watched him for several minutes before he was aware of our presence. He was sitting quietly until he discovered our presence, when his nervous chill took possession of him again. We were now thoroughly convinced that he was shamming, and taking him by the shoulders, rather vigorously told him that we were satisfied he was not ill, and that he ought to be in the penitentiary instead of the State Hospital. We assured him that we would send for the sheriff at once and have him removed to the county jail. He broke down entirely, and begged us not to allow the sheriff to have him again, confessed that he was shamming, and declared he would do anything for us if we would allow him to remain with us. We kept him for two weeks under careful observation, and did not notice any manifestations of insanity at all. He was then taken back to jail, tried and convicted. I might enumerate other cases, but these will serve for illustrations.

As a résumé, then, we would submit the following:

1. If insane, there must be some particular form or type.
2. Simulators almost always exaggerate. In connection with this I would say that one may have a thorough knowledge of insanity in the abstract, and really know very little about the insane. That is, it requires actual contact with insane people to appreciate their peculiarities, and by such contact one learns almost intuitively to differentiate the real from the assumed.
3. Detection of feigned insanity in the criminal will always be difficult, because in those cases badness and madness are so intermingled that one hardly knows which it is that regulates their conduct. We constantly hear that this man is a degenerate, that this one is irresponsible, and in fact I believe the most advanced penologists of to-day take the position that no criminal is fully responsible. Undoubtedly there are hundreds who can hardly be said to be sane and responsible, but who are constantly committing crimes, perhaps of no great magnitude, but which render their residence outside of a prison hazardous in the extreme. Some of their crimes are so motiveless, so silly, so violent, or so outrageous, that

we are tempted to call them moral imbeciles. Each of these must be judged by himself.

4. In dealing with this class, it is well to remember that the laws of our land are not made to protect the criminal, but to protect the people from the effects of crime.

5. We as physicians and lawyers should look through the lunatic to see the man, rather than through the man to see the lunatic.

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## BACTERIOLOGY IN ITS RELATIONS TO CHEMISTRY.\*

BY DR. JOHN G. SPENZER,

Professor of Chemistry and Pharmacology, Cleveland College of Physicians and Surgeons.

Bacteriology was originally a branch of botany, but it has made its greatest advances through the association with chemistry which began with the labors of Pasteur<sup>1</sup> on fermentation. Our more recent gains in the knowledge of it are due, in part, to the work of Koch and his pupils from a medical point of view, but largely also to the later studies of Pasteur and his followers, and to the still more purely chemical researches of Baumann, Brieger, Gautier and others.

The progress made in the chemical study of bacteria and of their products has been principally due to methods of pure cultivation, which can hardly be very much improved: pure cultivations of yeast for making bread, wine, and especially beer, are now articles of commerce,<sup>2</sup> and their importance in a pure state is quite generally acknowledged.<sup>3</sup> It is quite reasonable to suppose that pure cultivations of bacteria for research could be obtained much as we obtain pure chemicals.

It is doubtful whether we can longer use the phrase "*typical bacteria*," especially in the case of pathogenic micro-organisms. For the exact differentiation of even carefully studied bacteria like those of cholera and of typhoid fever is extremely difficult, and morphologic characteristics, which were formerly employed almost

\*From a Toast delivered at a Banquet of the Cleveland Chemical Society.

exclusively, have mostly given place to chemical and pathogenic tests.

The same bacterium under different conditions may show a variation in character greater than that between two distinct species.

But it has been shown that the fermentations set up by different bacteria and yeast germs are entirely different: they are of great importance to the chemist, as they have afforded the only means of breaking up certain compounds and isolating new products. On account of their selective action, attacking some substances and not others in the same solution, it is possible through their agency to separate certain isomeric compounds which have heretofore baffled the chemist.

No case is known of a perfect physiologic antagonism between two substances so that every action of one is counteracted by the other. The antagonism between muscarin and atropin is one-sided: all the symptoms of muscarin poisoning can be checked by the use of atropin, but not so those of atropin poisoning by the use of muscarin. This depends on the fact that it is easier to paralyze an organ previously stimulated than to restore to healthy action one paralyzed in advance.

A peculiar kind of physiologic antagonism can be observed in the case of micro-organisms. It seems to be a general law that they cannot live well amid the products of their own existence; in fact, they are destroyed thereby. Thus the yeast germ dies when brought into alcohol, the mycoderma aceti in vinegar, the lactic acid bacillus in lactic acid, and fermentation bacteria in aromatic putrefactive products.

On this is founded vaccination and immunity from disease. Pohl-Pincus<sup>4</sup> expressed himself some years since as follows: "It is only necessary to prepare the poison of the different kinds of bacteria (variola, scarlatina, etc.) through cultivation in an incubator, and to bring these, freed from bacteria, into the animal economy; as soon as these substances are in the circulation, the body is guarded against the disease which originally furnished the bacteria."

There are at present a number of these poisons or toxins to which the collective name *antitoxin* has been

applied. Pohl-Pincus suggested the following names, according to the bacteria from which they were derived: Variolin, scarlatin, morbillin, anthracin, cholerin, dysenterin and tuberculin. Koch, Behring, Kitasato, Tizzoni, Cattani and Klemperer have, in a measure, proven the correctness of this statement in the case of tuberculosis, diphtheria, tetanus and pneumonia. It is very surprising that some toxalbumins which are not produced by bacterial action have the property of producing immunity against disease. This interesting fact was lately discovered by Ehrlich<sup>5</sup> in the case of ricin and abrin.

As has been said, poisonous albumins or albuminoid substances are commonly termed *toxalbumins*; it must not be supposed however that they are all albumins in the more limited meaning of the term, for many globulins, peptones, etc., are classified with them, although some are quite unlike albumin in that they are diffusible, barely give the usual reactions for albumin, and are so poor in sulphur as to be looked upon as sulphur-free. A great number of animal and vegetable enzymes capable of digesting albumin, possessing inverting and diastatic action, and with power of splitting up the glucosids, belong here. To these belong also the albuminous animal poisons, of which\*snake and spider poisons are the more important. We must also add that interesting class of vegetable toxalbumins not produced by bacteria, as ricin, abrin, phallein and robinin.

The exact condition of the system in immunized animals or human beings is not known. Emmerich and Tsuboi<sup>6</sup> believe that the serum-albumin of the blood is in combination with bacterio-toxin, and might therefore be called serum-albumin-bacterio-toxin, or, briefly, immune-toxin-protein. Hankin<sup>7</sup> calls those substance *protective albumins*, which are found normally in some species of animals or are produced by immunizing others. They seem to be globulins; still our knowledge of them is very incomplete as yet. Buchner<sup>8</sup> terms them *alexins*. Hankins<sup>9</sup> designates those found in the normal body as *sozins* and those produced by vaccination as *phylaxins*. Sozins he again divides into such as will destroy the bacteria producing them and others which destroy the poison produced by the bacteria. To the first he gives the name

*mykosoins*, and to the last *toxosoins*. Hunger makes the production of these compounds more difficult and impoverishes those already formed.

Bacteriology in its relations to chemistry, although yet in its infancy, is nevertheless rapidly developing and, while we have as yet but few thoroughly matured points to work on, which renders our medical, chemical and bacteriologic knowledge of these most useful chemical assistants or most terrible enemies yet imperfect and in some directions very meagre, still the combined labors of the medical clinician, the expert chemist and the bacteriologist can and will develop this most promising field for the benefit of the health, industry and commerce of mankind.

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## CLINICAL MEMORANDA.

BY J. H. MCCARTNEY, M. D.,

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CALCULI CAUSED BY THE PRESENCE OF A RED-PEPPER.  
—The following case is interesting principally because of its uniqueness. In searching literature at my disposal I have failed to find anything like it, and so far as I know it stands alone. Different parts of China have proven



fertile fields for lithotomy practice, but in no part, up to date, has there been reported any case similar to the following:

B., a middle-aged man, married, opium smoker, had been ailing with the ordinary symptoms of calculi for two years. A small stone was diagnosed, and after a few days' preparation, during which time his opium was entirely cut off, the operation was done. The left lateral perineal operation was chosen. Opening into the bladder, three stones in place of one were found, and on extracting them it was found that two small stones were attached one to either end of a small red pepper about one inch long. The pepper was perfectly preserved with the exception that it was darkened in color. The patient could give no history of how it came to be there. There is no question but that it was introduced before the stones formed and was the cause of the formation of at least two of the stones. How long it had been in the bladder no one could tell. It was probably introduced when he was a child, and being so long ago he could not remember it. If it had been introduced in the past few years he most certainly would have recalled it.

The case is altogether peculiar. How did the pepper get into the bladder, and if introduced when a child, why did it not give him more trouble sooner?

TRAUMATIC AMPUTATION OF THE THIGH AT MIDDLE AND UPPER THIRD.—In the United States we often meet with accidents in which either arms or legs have been amputated, but as far as I know cases similar to the following rarely if ever happen. The patient was a man about 55 years of age, a stone-quarrier. While quarrying under a ledge of rock he was crushed by a large piece falling on him, with the result that one of his legs was crushed off with the exception of a small ribbon of skin which held the injured member to the body. In China they have no way of stopping such a flow of blood as would necessarily follow such an accident and the femoral artery was severed as clean as if cut with a knife. The place where the man was injured was twenty miles distant from Chung-king Hospital. They placed him on a boat-load of stone, and in a burning hot sun he was brought to Chung-king. When he arrived at the hospital I was

not in, but my assistants found him conscious and in a dying condition. When I saw him first it was about 48 hours after the accident, and then he was beyond all help. The remarkable thing to me is that he did not bleed to death soon after the accident, as no tourniquet or any other means were used to prevent the bleeding. The pulsation of the femoral artery was plainly seen when he reached the hospital.

The patient died, as would be expected, but not until he had shown the remarkable power of withstanding shock manifested by the Chinese.

USE OF IODIN IN THE TREATMENT OF HERPES ZOSTER.—The treatment of skin diseases forms no small part of our practice among out-patients in China, which practice gives us an opportunity of trying the various remedies given in the text-books, and, may I say, affords us a chance of trying anything new which suggests itself.

As is well known, herpes zoster is a disease which has a tendency to get well of itself, if left alone, in a few weeks. Nevertheless we are always anxious to avail ourselves of any remedy which offers hopes of being able either to cure or abort. I have tried all remedies which text-books mentioned, but not with the success wished for.

The last patient who came to my notice was an English business man of this city, who had been suffering for several days. The ordinary remedies had been tried, but without much benefit, when at last tincture of iodine suggested itself. This was tried, and after morning and evening applications for four days the patient pronounced himself cured. The pain was lessened after the first application (although it caused considerable smarting), and the vesicles or papulo-vesicles (in this case) were entirely dried up at the end of this time.

In this case as well as in a case among the Chinese, tincture of iodine proved more efficacious than any other remedy yet tried.

A CASE OF PAPILLOMA OF THE OVARY WITH  
BROAD LIGAMENT METASTASES. OP-  
ERATION. RECOVERY.\*

BY HUNTER ROBB, M. D.,

Professor of Gynecology, Western Reserve University, Cleveland.

Mrs. A. R., aged 32, housewife, was admitted to the dispensary service of the Charity Hospital, September 11, 1895, complaining of pain in the right inguinal region, and backache. The family history is without significance. Patient was married twice, first when 13 years old, for five months; the second time for  $3\frac{1}{2}$  years. She has had two children by her second husband; labors not instrumental; no miscarriages. Catamenia began when she was  $10\frac{1}{2}$  years old. They were always regular and without pain and lasted usually for four days.

*Present sickness.*—The exact date of the onset cannot be obtained. For the past five years she has had some pain at the menstrual period and has felt, also, "as though her womb were dropping out." She menstruated twice during August, 1895, for the first time from the 5th to the 9th, and then again from the 18th to the 23rd of the month. Of late she has been complaining more particularly of pain in the right inguinal region, accompanied with backache. The intensity of the pain varies, but it is generally increased on exertion. She has leucorrhea at times. No frequency of pain on micturition. Bowels regular. No pulmonary or cardiac symptoms.

*Examination under anesthesia.*—September 21, 1895. Outlet slightly relaxed. Tag of tissue projects from anus 2 cm. long. Three patches of pigmentation on labia majora and minora. Cervix points downwards. Small bilateral laceration. On the anterior lip there is an indurated mass the size of a pea. Uterus inclined forwards, enlarged, not freely movable. On the right side low down in the pelvic cavity a tumor mass the size of an orange can be palpated, slightly fluctuating, possibly an ovarian tumor. Nothing abnormal felt on left side; ovary not palpable.

On October 1, 1895, the operation of right salpingo-oöphorotomy, with separation of dense adhesions, was

\*Read before the Cleveland Medical Society, December, 1895.

performed at the Charity Hospital, in which I was assisted by Drs. Lincoln, Brokaw, Paulin and my nurse, Miss Heriot. The usual preparations were made. The incision, about 6 cm. in length, was made in the median line through thick abdominal walls. The mass on the right side was as large as an orange and consisted of the tube and ovary and was found to be adherent to the broad ligament and to the pelvic wall. The adhesions having been separated, the mass was first delivered, and afterwards transfixed, tied, and incised. The left tube and ovary were so densely adherent that it was impossible to remove them, but many adhesions on this side were separated, as well as many adhesions by which the uterus was bound down to the pelvis. The abdominal cavity was then washed out with a sterilized salt solution at a temperature of 112° F. and sponged dry. A piece of 10 per cent. iodoformized gauze was introduced into the pelvic cavity posterior to the uterus, the ends being brought out at the lower angle of the incision. The abdomen was then closed and the usual dressings applied. Time of operation, 35 minutes.

The patient made an uneventful recovery, the stitches were removed on the seventh day following the operation; there was no suppuration.\*

#### MACROSCOPICAL AND MICROSCOPICAL REPORT.†

*Macroscopic description of right Fallopian tube and portion of broad ligament.*—The fimbriated extremity is bent backwards, and faces posteriorly. The fimbriæ are stuck together, but the abdominal opening is still patulous and admits a coarse needle. The tube itself is small (7 mm. in diameter). The mucous membrane is arranged in folds, which run parallel to the axis of the tube. The tumor has evidently developed in the anterior fold of the broad ligament. At the apex of the lower and inner-lower and outer border is a papillomatous growth about 1 cm. in diameter, attached to the main part of the specimen by a very small pedicle. At the base of this pedicle no especial infiltration or hard deposit is found. The

\*May 15th, '97.—The patient is in good health, and apparently there has been no return of the disease.

†By Dr. Walter Lincoln, from the pathological laboratory of the Western Reserve University.

surface of the papilloma is studded with very many fine, short papillæ. The papilloma as a whole is made up of 4 or 5 portions arising from the common pedicle, but blending together for a short distance, to separate again a little further on. On the lower outer border are found several very small papillomatous growths, springing from indurated and hardened spots in the broad ligament. These hardened spots on section are white and glistening; they extend for a considerable distance up between the tissues of the broad ligament.

The cysts, when incised, poured forth a whitish-yellowish, syrupy, opaque, homogeneous, colloid fluid, which coagulated on standing. On washing this fluid away, numerous fine papillomata were found springing from the cyst walls. These were found in all the cysts. After being hardened in alcohol they appear of a creamy white color. At one spot the wall is especially thick, measuring 1.5 cm., and is infiltrated with small papillomata. On the outer side of the cyst are several small papillomata resembling the one found at the apex of the lower-outer and lower-inner border of the broad ligament.

*Microscopic examination of papilloma of cyst wall.* — The specimen naturally divides itself into two parts, viz., stroma and epithelium. The stroma is composed of fibromuscular tissue, which in some places, especially immediately under the epithelial cells, has undergone a hyaline or myxomatous change. Some cells have oval nuclei, and some have rod-shaped nuclei. The epithelium, which is mostly of the columnar type, probably ciliated, exists in more than one layer on its basement membrane; here and there it has become cuboidal. In some parts of the section, the papillæ are seen to have pushed their way through the cyst wall into the stroma. Similar cysts are also to be seen, their contents staining sometimes with eosin and sometimes with hematoxylin. Places are also found where the epithelium has broken through the submucosa and has become squamous.

*Histologic Diagnosis.*—Proliferating papillary cyst of the ovary with malignant (carcinomatous) degeneration.

*Sections from the metastasis in the broad ligament* show a copious deposit of chalk (psammomata) in the tissue, and at one spot a collection of cylindrical epithelial cells



OVARIAN CYST WITH PAPILLOMATOUS INFILTRATION.  
(DR. ROBB'S CASE.)



arranged in granular form identical with that found in the specimen mentioned above. Here and there are found small cysts filled with a substance which stains with hematoxylin. Very many blood vessels with thickened walls are to be seen.

*Transverse section of Fallopian tube at its middle.*—The muscular coat of the tube, especially at that part corresponding to the upper portion where the tube was *in situ* in the body, is somewhat thickened and is very rich in blood-vessels. The mucous membrane is very much convoluted and is arranged in delicate papillæ. The cells seem to have lost their ciliæ in great measure, only a few here and there being seen. The cells also present the appearance as though they were arranged on their basement membrane in a double or triple layer. This however may be due to the thickness of the section. Some cells, probably desquamated, were found free in the lumen of the tube. No area of round-celled infiltration could be demonstrated. The peritoneal covering of the tube was stained a fairly deep red with eosin and contained no nuclei, giving the appearance of a uniformly fibrous coat. No metastases were here discernible.

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## SOME REMARKS ON THE EFFECTS OF OBSTRUCTED RESPIRATION.\*

BY C. W. SMITH, M. D., CLEVELAND.

The effects of obstructed respiration, like those of certain medicines, are quite obscure, and so far as it is known, but little has been written for this society having a direct bearing upon the subject. The whole trend of medical progress at the present time seems to be in a line of work looking to the prevention of disease, rather than in the less hopeful tasks of establishing cures, and it is therefore in the nature of an appeal for a closer observance of natural laws, and simpler methods of treatment, that this discussion of well established principles is now offered.

Like the draughts of a furnace, the upper air passages

\*Read before the Cleveland Medical Society, April 9, 1897.



are subject to closure. This closure may be partial or complete. The nostrils fluctuate in size with nearly every wind that blows, and the inhalation of small particles of matter, or irritating gases, may close one or both of them entirely. A chronic state of partial or total occlusion of the air passages may also be caused by what is known as catarrh, or a series of colds in the head, hay fever, hypertrophic growths, malformations, deflections of the nasal septum, or by foreign bodies, etc. Thus it is that normal respiration is often impeded and its progress obstructed.

Much has been said and written upon the necessity of fresh air, and the danger of poorly ventilated apartments, and it is undoubtedly well and properly said; but is it not rational first to satisfy one's self that the patient is able to inhale a sufficient quantity of air for his proper sustenance before dismissing him with a suggestion of its necessity?

A certain number of patients have been classified as anemic, dyspeptic, neurasthenic, neuralgic, hypochondriacal, the subjects of frequent headache, with loss of appetite and diminished weight, and in whom the signs of general debility are very noticeable, wherein it is difficult to trace the causes of the existing phenomena to other than those usually ascribed to obstructed respiration. This cause is believed to be much more common, as well as more frequently recognized, than the casual observer might admit.

In relation to the frequency of obstructed respiration I will state that of 268 children examined by Dr. Halsted at Syracuse in 1892, 23.7 per cent. suffered from adenoid vegetations, of whom 50 per cent. suffered also from enlarged tonsils, and 46 per cent. from some anterior nasal obstruction. The children examined were inmates of charitable institutions, and likely represent too great a percentage for general application, but the condition is by no means rare. Adults are less liable to glandular enlargements, but are more liable to deviations and to deformities of the nasal septum and other forms of occlusion of the upper air passages.

One of the first effects noticeable as a result of insufficient oxidation is a pallor of the surfaces, and espe-

cially of the mucous membranes; the conjunctiva is seen to be very clear and white, and when nasal obstruction is a factor in its production the roof of the mouth will be found anemic and often has a very ashy white color. This symptom is believed to have some diagnostic value as an index of nasal incapacity. If lack of sufficient respiration continues long, the integrity of the tissues suffers greatly, the tissue cells are partially suffocated for want of proper oxygen, are poisoned by carbon dioxide, and muscular weakness results. The weakened muscular action is often exhibited by excitability of the heart's action and by a weakened, quick pulse. The subject is easily exhausted, breathes more rapidly than normal after slight exertion, and complaint is made of a feeling of malaise. The blood becomes pale and vitiated and is incompetent to perform its functions normally. The secretory glands of the stomach and bowels are deeply affected by general anemia, and as a consequence the digestive fluids are deficient in quantity or in quality, and indigestion naturally follows. The indigestion is attended by fermentation, constipation or diarrhea, etc., and the absorption of the sour ferments thus generated must necessarily depress the vitality of cell life and further vitiate the blood. Oxygen, which forms nearly one-half of the crust of the earth and one-fifth of our atmosphere, is a very important factor in almost every chemical change occurring within the body as well as elsewhere, and without a normal supply of it the functions necessary for tissue building are suspended or are handicapped. Every tissue must suffer in its turn, and the nervous system is not exempt. Neurasthenia is likely to follow in the wake of other resulting phenomena. The osseous system is also sometimes weakened, and children become rachitic and chicken-breasted, or suffer from curvature of the spine. In fact, the general vitality of the body is lowered, and in extreme cases of obstructed respiration intercurrent diseases of all kinds are invited to take a hand in making the destruction complete. Anemia not only hinders constructive metamorphosis, but superinduces necrobiosis and ulceration of mucous membranes, thus laying bare the deeper structures of the body for invasion of infectious matter; and, above all, is it not well to consider these questions in con-

nection with our efforts to overcome the tendencies leading towards consumption?

In ascribing such far-reaching effects to imperfect oxidation of the tissues, objections may be raised in favor of other causes considered to be more potent. It is unquestionable that a multitude of pitfalls are lying in wait to destroy and depress vitality, but there seems to be no one agency known to depress and retard the healthy growth of young people oftener or more effectually than some form of obstruction to normal respiration.

A clear atmosphere, of uniform temperature, probably exerts its most helpful influences by virtue of its purity and lack of irritating qualities, thus making it acceptable to the air passages. Less resistance is offered to its admission by the sensitive tissues, and its entrance into the blood is less likely to be barred by bronchial secretion and other inflammatory products. The otherwise helpful influences of exercise in the open air may be interdicted by lack of respiratory capacity, and wheel riding, running, hand-ball playing and other active and prolonged exercises may become absolutely injurious.

A most fruitful subject for consideration is that referred to among foreigners as *Americanitis*, in other words, a depleted and exhausted nervous system. Through a possible lack of chivalry the male members of society are wont to ascribe all nervousness to women, but a close investigation of the facts is likely to convince one of the fallacy of such a belief, and it is safe to assert that in cities and towns where men are confined to offices and other indoor places of employment, remote from a clear atmosphere, and breathing one charged with dust and irritating gases, that they are quite as often the subjects of nervous irritability as are their wives who remain at home surrounded by similar environments. Acting on the ground that nervous debility is a womb begotten disease, our gynecologists have for the most part held the floor. In this connection allow me to quote Dr. Joseph F. Edwards, of Atlantic City, who says: "In the course of a recent most interesting discussion before the College of Physicians of Philadelphia, upon the causative influence of gynecological diseases in the production of diseases or derangements of the nervous system, the weight of evidence seemed to

be negative; those who were not influenced by the fact that they were gynecological surgeons seemed to think that nervous derangements are not so generally dependent upon gynecological diseases, and that their relief does not so frequently follow gynecological operations as many of us have been taught to believe. I am tempted to ask whether the reverse is not the case; whether many gynecological diseases are not directly or indirectly dependent upon a primary derangement of the nervous system." (*Medical Record*, March 27, 1897.)

At this point I will ask that space be allowed for a few additional quotations from recent journals and prominent writers to corroborate or qualify some of the statements herein.

In the *Laryngoscope* for July, 1896, Dr. J. E. Schadle, of St. Paul, Minn., when writing upon Post-Nasal Adenoid Hypertrophy, says: "The physician who assists at the infant's birth and prescribes for it through its early life, should especially be able to recognize this abnormal condition of the post-nasal space, for undoubtedly to adenoid vegetations are due many of the nervous and nutritive disturbances of the young. . . . Through respiratory interference difficult oxygenation of the blood results, establishing a process of carbon dioxid poisoning, impairing nutrition and inducing anemia—conditions from which recovery is sometimes protracted even after the function of nose-breathing has been fully restored. . . . Children affected with adenoid vegetations and allowed to go on without obtaining relief, are certain to fall far below that measure of health and strength to which they would else have attained. They grow up sickly and feeble, and the event is looked upon as a visitation of Providence. . . . Growth will be stunted; energy will be deficient; maturity will be less vigorous than it ought to have been; and success and happiness in life will be hindered. Their ultimate physical power and their efficiency as men and women will inevitably be more or less diminished by it. Can all this consequent injury be obviated? It can, by early recognition and removal of the trouble."

Before the New York Academy of Medicine Dr. William H. Thompson, in discussing "Functional Car-

diac Murmurs," made use of the following statements:\* "Throughout the whole animal kingdom muscular power is in direct proportion to respiration; muscular weakness tends to produce anemia. The muscle cell has to breathe more than any other cell, more even than the nerve cell, for it has two functions to perform—to produce muscular contraction and to make heat. The most marked causes of fatty heart found at the autopsy-table are caused by pernicious anemia."

Under the heading, "Key-notes to the Treatment of Consumption," Dr. E. C. Atkins, of Colorado Springs, writes:† "No one denies that whatever the original cause of phthisis, whether it be tubercle bacillus, as most of us think, or something else, once established it is a wasting disease with failure of all nutritive functions as prominent symptoms in most cases. We have sought in vain for medicines that will reach the foundation of this disturbance, and the ever-increasing number is evidence of the futility of all. . . . The climate of Colorado Springs will accomplish a cure if it has a fair chance, but it cannot do so without the proper materials to work with. Nature's laws and her mute appeals for help must not be entirely disregarded if good results are to be looked for. . . . The appetite becomes ravenous, and the greatest care must be exercised to prevent the patient from eating more than can be assimilated. No good and much harm comes from over-eating. The appetite is no guide to the quantity or kind of food. They want everything and will eat everything if you let them, but the oxidizing capacity of the body is limited. In the healthy adult it is estimated to be seven hundred and fifty grammes in a day, but this amount is largely diminished by the enfeebled condition of the consumptive invalid."

\**Medical Record*, December 12th, 1896.

†*Medical Record*, November 18, 1893.

MUSCULAR PARADOX AS A DIAGNOSTIC IN  
HYSTERICIS.\*

BY CHARLES J. ALDRICH, M. D.,

Neurologist to the Cleveland General Hospital.

Any one who would inflict a new name on the word-burdened literature of the nineteenth-century medicine must show good cause for his act. But he that conceives a term that is descriptive, technical and comprehensive, for an homologous group of symptoms or phenomena may be pardoned, and if his creation is happily apt he may be rewarded by its retention in the healing art. I have coined the term "muscular paradox" for two sufficient reasons:

First, because we have nothing short and expressive to designate the phenomenon of hysteria which is characterized by paralysis or weakness of a muscle or group of muscles, for one purpose and not for another.

Thus, a short time ago a man consulted me regarding a pain along the front part of the thigh and a difficulty in walking. The origin of the pain was obscure. It was not confined to the distribution of any particular branch or nerve trunk. The disordered locomotion seemed to arise from a lack of power in the extensors of the leg and upper thigh muscles, which prevented his advancing the limb to take a step. Yet while lying down he could readily and powerfully flex the thigh on the abdomen and extend the leg. This apparent inconsistency was a perfect type of *Hysterical Muscular Paradox*, and its presence in this case made plain other puzzling facts.

Second, because this phenomenon of hysteria seems to contravene known laws of muscular action, thus constituting a genuine paradox.

It has long been noticed that hysterical people would manifest marked weakness or paralysis of a muscle or group of muscles in the performance of certain acts, while the same muscle or group could be used with vigor in the performance of some other action. <sup>1</sup>Babiniski described a patient who could use the legs for absolutely nothing but standing and walking. I have observed a man who could, while lying in bed, kick and perform all

\*Read before the Cuyahoga County Medical Society, April 1, 1897.

of the movements of the lower limbs with quickness and power, yet could neither stand nor walk. <sup>2</sup>“ In the same general category belong those patients who cannot walk, but can climb trees, or ‘go on all fours,’ or jump along with both feet together, or hop on one leg.” I once examined a patient who was supposed to have a paralysis of the right leg, who while ascending the stairs put the leg in question on the upper step and *dragged the well limb up to it*, and so on up the stairway, while, as you all know, in organic palsy the paralytic leg is the lagging member.

The syndrome which Blocq fully described under the name of *astasia-abasia* should rarely be considered as a nosological entity, but rather the exhibition, in a high degree, of the *muscular paradox* which obtains so frequently in hysterical affections. In this disease of formidable name coördinate movements of all the members are possible while in a lying posture only, and are totally lost when an attempt is made to stand or walk.

In Mendel's clinic I saw a man suffering from an hemiplegia, who came in on crutches shoving the disabled foot along, held out in front of him, instead of swinging it forward as in an organic hemiplegia. This bizarre gait alone stamped the case—*hysteria*.

In Professor Ferrier's clinic I saw a woman hobble in on crutches with her foot in a long sling. When she volunteered the information that she was paralyzed on one side, Ferrier immediately pronounced the disability hysterical, and added that when hemiplegics come on crutches or with the leg or foot in a sling, their disease is of functional origin.

<sup>3</sup>Gower has called attention to the peculiarities of the hysterical hand-grasp in hysterical weakness of the upper extremities. When the hand attempts to grasp strongly it fails to flex on the wrist as it invariably does in an organic paralysis.

<sup>4</sup>Dr. Patrick, of Chicago, describes a feature of the hysterical hand-grasp that I have never seen elsewhere mentioned. The hysterical patient grasps almost exclusively with the forefinger and thumb. “Now if the examiner places his fingers in the hand of the patient from the ulnar side, allowing them to reach no further than the metacarpal bone of the index finger, the patient will

be found to grasp with the last three fingers which were before apparently powerless." While in the National Hospital for Paralyzed and Epileptics in Queens Square, London, last summer, I had the opportunity of verifying this astute observation of Dr. Patrick on a goodly number of functional palsies in the services of Drs. Buzzard and Gower.

It would be a work of supererogation for me to take up these cases, so briefly touched upon, and in detail point out the paradox in each. It is too apparent in all. Not all instances of muscular paradox are so readily discerned as in the cases mentioned, but must be searched for.

In the examination of a case of suspected hysteria, for the purpose of detecting muscular paradox, we are to proceed much as we would to detect a simulator in some inconsistency.

The patient, while in bed, is required to perform movements which will in succession call into action all of the muscles of the extremities. If none of these movements seem to contravene our knowledge of muscular action, we should then afford, by exercise of our own strength, some resistance to these actions. While it is impossible in this short paper to go into these tests in detail, one or two will be ample to demonstrate the mode of procedure applicable to all.

In hysterical paraplegia or weakness of the lower limbs, the quadriceps extensors are to be tested as follows: Requesting the patient to keep the leg rigidly extended and to resist with all power its flexion, you are to grasp the ankle firmly and with the other hand in the popliteal space attempt to flex the leg on the thigh, noting the while the amount of strength used by you to overcome the quadriceps extensor. Now place the leg so that it forms with the thigh an angle of about 90 degrees, and with the hands in the same position as before, request the patient to extend the leg with all power against the resistance offered by the hand on the ankle, noting as before the relative strength of the extensors. Here, as you readily perceive, we have put the one muscle to the performance of two distinct actions which require for their perfect performance the normal contraction of but one muscle, yet we are surprised to note that the amount of



strength used on the part of the examiner to resist the execution of one of these acts may be double that required to inhibit the other.

This constitutes a type of the muscular phenomena embraced within the title of this paper, and I am sure that in hysterical affections of the limbs, you will find this paradoxical condition with a convincing constancy.

The hamstring muscles, the flexors and extensors of the ankles, in fact any muscular group, may be tested in a similar manner, varied of course to suit their individual positions and actions.

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## THE PREVENTION AND TREATMENT OF POST-PARTUM HEMORRHAGE.

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It would be difficult to find any more cogent illustration of the wisdom of the ancient adage, "Prevention is better than cure," than that afforded by the subject of the present brief communication, dealing as it does with a preventable, and occasionally fatal, complication, the possibility and prophylaxis of which should never be absent from the mind of the obstetric practitioner. Although, at the same time, under ordinary circumstances and with ordinary care in the management of labor, death from flooding should be an extremely rare accident.

Thus, in the course of a tolerably extensive obstetric

experience in various climates, in private and hospital practice, I have met with only three instances of fatal hemorrhage after delivery, or within the prescribed period, and each of these resulted from circumstances which might properly be excluded from consideration in these observations, namely, (*a*) inversion, (*b*) rupture of the uterus, and (*c*) secondary hemorrhage, consequent on malignant smallpox. Putting aside, therefore, such exceptional cases as those just alluded to, it will be found that as a rule post-partum hemorrhage is, as I have just said, a preventable accident.

The various possible causes of post-partum hemorrhage may be found described in every text-book and need not be dwelt upon in unnecessary detail. In the great majority of cases it results directly from inertia, or insufficient or irregular contraction of the uterus, the normal contractibility of the muscular fibres of which is, as was long since well expressed by Blundell, "Nature's tourniquet against hemorrhage after delivery."

In a certain proportion of instances, post-partum hemorrhage is traceable, as I have elsewhere shown, to parturient lacerations of the cervix, more especially in cases of assisted or instrumental delivery before the sufficient natural dilation of the os uteri has been effected. In such cases, the bright arterial hue of the blood will enable us to recognize the cause of the hemorrhage and to distinguish it from that coming from the uterine sources in the ordinary flooding from inertia.

Lastly, in not a few instances, the predisposing cause of post-partum hemorrhage may be discovered in the now somewhat prevalent hemorrhagic diathesis. This hemophilia or "bleeder-disease" being, as I have learned by my own experience, no less commonly met with in the underfed poorer classes in hospital practice, than in the well-to-do higher ranks of society in private midwifery practice; although the modes of life and surroundings of the latter are supposed by Playfair and others—with whose views on this point I do not agree—to be more productive of "that lax habit of body which favors uterine inertia," the most frequent cause of post-partum hemorrhage.

It needs no argument to prove the importance, in all cases, of anticipating and, by timely prophylactic measures

in the latter months of pregnancy, of warding off the possible occurrence of flooding after delivery. This is specially necessary in dealing with multiparæ, who, as I formerly observed, are thrice as liable to that complication as patients in their first labor.

In all cases I have, for many years, therefore made it a rule to administer tincture of perchlorid of iron or some other ferruginous tonic for a couple of months or so before the expected date of confinement. With the same object the patient should also be made to wear a well-fitting abdominal belt or binder throughout the latter months of gestation, as suggested by Duke, of Cheltenham. The support thus given to the distended uterine walls and abdominal parietes is not only a great comfort to the patient, but is also, as I have found by experience, most useful in increasing the contractibility of both, and thus warding off subsequent hemorrhage.

The state of the circulation during and at the termination of the second stage affords a very important indication as to the probability of post-partum hemorrhage. I have never yet seen the pulse permanently quickened during labor (that is to say, not subsiding to its normal rate in the interval between the pains and immediately after delivery) in any case in which this was not followed by post-partum hemorrhage, unless obviated by proper prophylactic treatment.

*Treatment.*—For the purpose of preventing the probability of subsequent flooding, more especially in multiparous patients, the membranes should be ruptured at as early a period as possible of labor, if hemorrhage is threatening, and in all cases during the second stage the uterus should be well supported by the accoucheur's hand, placed above the fundus, and the descending uterine tumor thus followed down during the expulsion of the child. Nor should his grasp and control over it in this way be relaxed until the completion of the third stage, and subsequent firm and lasting contraction of the uterus has been secured. Moreover, in every instance I endeavor to render this more certain by administering ergot as soon as the os is fully dilated, there being, of course, no other obstacle to delivery than want of expulsive force, and then not in the small and wholly ineffectual doses recommended

in some modern text-books on midwifery, but in full and repeated doses of at least a full teaspoonful (or, in pluripara, more often two drachms of fresh liquor ergotæ B. P.) by the mouth, with the addition of another drachm of the same preparation by deep hypodermic injection into the gluteal muscles.

As an examiner, I have recently observed that students are now apparently very generally indoctrinated by the obstetric teachers of the present day with a most exaggerated idea of the possible ill effects of giving ergot during the second stage of labor, and seem to be commonly ignorant of the fact that, when properly administered and in suitable cases, no drug has yet been found of equal value in the treatment of inertia of the uterus leading to subsequent hemorrhage.

It need hardly be observed, however, that the administration of ergot in this way should only be resorted to with the view of stimulating uterine action, and so obviating post-partum hemorrhage, when the os uteri is fully dilated, the presentation normal, and the delivery uncomplicated by any mechanical obstruction.

If, notwithstanding all these precautionary measures, this accident should nevertheless occur, and assuming that the placenta and membrane have been completely expelled, and that, as is the case in the majority of instances we are dealing with, flooding is from imperfect contraction or inertia of the uterus—then, the fundus being still grasped from above, a strong solution of alum in water, as hot as can possibly be borne by one's own hand, should be thrown into the uterine cavity until, all clots and débris being cleared away, the water returns clear, and the uterus contracts firmly.

Should that, however, not soon be the case, then no time should be wasted in trying any of the vaunted styptics sometimes relied on (of which I may add that probably the two best are Barnes' strong solution of perchlorid of iron and, second, common turpentine, which I believe I may claim the credit of employing with advantage in such cases), but the hand, first, of course, thoroughly cleansed and rendered aseptic by the use of strong carbolic soap and the nail brush, should be at once introduced gently and carefully into the uterine cavity, counter pressure

being at the same time made from without by the other hand, the grasp of which over the fundus should never be relaxed until that firm and permanent contraction which is essential for the safety of our patient has been effectually secured.

In like manner, if called to a case of more remote or secondary post-partum hemorrhage in which, though there may be no external loss, the symptoms of collapse shortly after delivery point to the occurrence of internal or concealed hemorrhage, the binder should be at once removed, the clot pressed out, and the hand, if necessary, introduced and retained *in utero* until its secure contraction is obtained.

In the foregoing remarks I have merely briefly glanced at some of the points which I learned from long experience to be of most importance in reference to the prevention and treatment of hemorrhage after delivery, and which I hope may possibly be found of some practical use by younger obstetricians, when called on to deal with such cases. This being the only object of these observations, it would be superfluous for me to attempt to enlarge their scope by any allusion here to the many other remedies which are recommended in every modern text-book in the treatment of this complication, such for instance as the method of plugging the uterine cavity with iodoform gauze, or the employment of transfusion as a *dernier ressort*, etc. These, each and all, may occasionally be found necessary and valuable in exceptional cases. But if the methods of prevention and treatment advocated in this short paper be followed, I venture to think that they will be comparatively seldom needed in ordinary midwifery practice for the treatment of flooding after childbirth.

A CONTRIBUTION TO THE LITERATURE OF  
ANTITOXIN IN THE TREATMENT OF  
DIPHTHERITIC LARYNGITIS, WITH  
REPORT OF TWO CASES.

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In diphtheria of the tonsils and pharynx a small proportion of cases are of a mild character, and free from danger, at least at the outset.

These cases *may* yield to ordinary constitutional and local treatment before absorption of toxic products takes place. Where the experienced physician can differentiate he may not find it necessary to use antitoxin, the patient recovering without it. With diphtheria of the larynx it is very different. Here the most imminent danger exists in all cases from the moment when the first brassy note of the croupy cough is heard. That sound, once so dreaded by the physician, who alone realizes its full significance in diphtheria, is no longer heard with a sinking heart; but with almost as much confidence in an injection of antitoxin to save his patient, as in an hypodermic of morphia to relieve pain, he uses the serum and calmly awaits results, feeling thankful that Providence has placed within his reach an almost certain means of saving life under such desperate conditions.

\* The best results obtained by intubation alone prior to 1892 were a mortality of 69.5 per cent. Since then until the introduction of antitoxin the best results were from 51.6 per cent. to 73 per cent. With serum the mortality was reduced to 33 per cent., the highest, and 23 per cent., the lowest. In 691 cases of diphtheritic laryngitis, in some of which severe stenosis was present, in which serum was used without intubation, 563 recovered, a mortality of only 18.5 per cent. In 80 of the fatal cases death was caused by other complications than the laryngeal disease. In the remaining 48 the patients died from obstruction of the larynx, but no statement is made as to the length of time after invasion of the larynx when the serum was used. I do not mention the operation of

<sup>o</sup>From Report of Amer. Ped. Soc. Committee, May, 1896.

tracheotomy as, owing to its being used so frequently as a last resort, cases were seldom saved by it.

It is true that intubation has proven a vast improvement on tracheotomy in many respects; but it is also true that there are many instances in which the operation is difficult to perform, except by an expert. The tube also frequently slips out, and cases have occurred where the child died before the tube could be replaced, or where the tube became obstructed and the child perished before the tube could be cleared. Perhaps the greatest objection to using intubation is the difficulty in giving sufficient nourishment.

Even where serum is not used the operation is rarely resorted to before stenosis occurs, and where both are used after this condition exists, the mortality is 25.9 per cent. on the average. My object in writing this article is to show that intubation is unnecessary if the serum is given before stenosis of the larynx occurs, and repeated within the proper intervals until all danger of stenosis has passed. In antitoxin we have a remedy which, if used at the proper time, we can rely upon to relieve not only the existing laryngeal complication, but actually to prevent further invasion of the larynx by destruction of germ virulence (as far as the patient is concerned) in the post-nasal and pharyngeal exudation, the source from which fresh infection is possible.

In my experience those cases of diphtheria are most manageable by ordinary constitutional and local treatment which are confined to the tonsils; the most dangerous and rebellious are those in which the exudation has existed in the naso-pharyngeal space before appearing on the tonsils or pharynx.

The tonsillar membrane may diminish and the little patient's general condition may improve (as is shown in reported cases) when a fresh invasion takes place, the exudate traveling from above down the uvula, and covering completely the tonsils on both sides, also usually involving the posterior pharyngeal wall; and I wish to emphasize the fact that it is from this post-naso-pharyngeal form of diphtheria that we are most liable to get the laryngeal invasion. \* "Cases of laryngeal diphtheria

\*Wyatt Johnston in *Montreal Med. Jour.*, for July, 1896.

occur in which no membrane appears on the pharynx or tonsils, but the bacilli are present in abundance in the mucus of the posterior wall of the pharynx." This can be determined by passing a swab over the posterior wall in a doubtful case, and submitting it to the usual tests.

The question arises how long should one wait before using antitoxin in laryngeal cases. Where the pharyngeal case has been mild previous to the laryngeal invasion, and where no evidence of much debility exists, it is difficult to convince the parents or relatives that the child is in imminent danger from the onset of the laryngeal complication. It is in those cases that one might be led to lose valuable time; but the old maxim that "an ounce of prevention is better than a pound of cure" holds good here, and while the results of the early injection of the serum are not so brilliant as where the remedy is used and relief comes after stenosis, yet it saves a world of anxiety to the doctor, and much vitality to the patient.

I would not then wait for stenosis, but in from 12 to 15 hours after the first croupy cough gives its note of warning, I would give the first antitoxin injection. The amount, of course, must vary with the age of the patient. For a child of two years or under the dose should not be less than 1,000 units of full strength reliable antitoxin. Over that age from 1,500 to 2,000 units may be used according to age and the severity of the case. The mucous membrane, at the period mentioned above, although congested and already the field of activity of the germs, has, as a rule, not yet begun to throw out its exudate; and twenty-four hours more may elapse before the rima is sufficiently narrowed to produce stenosis. My advice would be, if the ordinary treatment does not relieve the croupy symptoms within the first twelve hours, do not wait longer but give the antitoxin at once. If there should be no improvement in the cough within twelve to fifteen hours after the first injection, even though other signs would show some change for the better, I would repeat the dose. I think twenty-four hours too long to wait in such cases, as, if the first injection is not sufficient, time is given for the development of membrane, and the necessity created for intubation in addition to the antitoxin.



A symptom which may occur after the injection of antitoxin, within the first twelve hours, in post-nasopharyngeal diphtheria preceding the laryngeal form, is that of slight epistaxis. With any other method of treatment this would be unfavorable, but after the use of antitoxin it indicates a disintegration and partial separation of the post-nasal exudate, and is therefore to be regarded as favorable.

One point I would like to call attention to is that, as a rule, patients convalescing from any form of diphtheria are freed from quarantine as soon as the throat is clean. It is the opinion of men with a large experience in the examination of such cases that the diphtheria bacilli are abundantly present for several weeks after disappearance of the membrane, in a large proportion of cases, and my own experience bears out the statement. It makes no difference whether antitoxin has been used or not, the presence of active bacilli from one to two weeks after the throat has been freed from membrane, has been demonstrated in nearly 50 per cent. of the cases examined.

In this connection I may also mention, with reference to quarantine in epidemics of the disease, since it has been demonstrated that virulent diphtheria bacilli may exist in large numbers in the throat of healthy persons, would it not be well, as Wyatt Johnston suggests, "that, instead of isolating and examining bacteriologically only those cases who have sore throat, all the throats in the institution or household should be examined bacteriologically, and those persons from whom a culture of diphtheria bacilli is obtained should be isolated and quarantined, whether ill or not, until no bacilli are found in the throat cultures." As he says, "this may explain the difficulty of preventing the spread of diphtheria in households or public institutions after all persons actually ill have been rigorously quarantined."

Almost all the cases of so-called membranous croup are diphtheritic, and in such cases, where the pharynx and tonsils are clean, swabs should be passed over the posterior wall of the pharynx and submitted to bacteriological examination, when the true nature will be revealed, as, if the case is diphtheritic, the bacteria will be found in the

mucus of the posterior pharyngeal wall even when no membrane is present.

CASE I.—Was called November 6, 1896, to see a boy aged ten years. Found him suffering from sore throat and fever; temperature, 104° F. He had been sick since the day before, had been going to school up to November 5th, showing no symptoms of illness.

On examining throat, found both tonsils inflamed and swollen. On right tonsil near the upper and posterior border there was a greenish-yellow exudation about the size of a silver half-dime. Nothing was visible on the left tonsil. The fever and subjective symptoms were out of proportion to the amount of local evidences of diphtheritic disease, but no other trace of membranous exudate could be seen by the most careful pharyngeal inspection. The case was diagnosed as diphtheritic, and subsequent bacteriological examination by Dr. Ohlmacher confirmed this opinion. The culture was nearly a pure one, very few streptococci being present, which would explain freedom from swelling of the cervical glands throughout the case. Prescribed the usual remedies, as it was late at night when I saw the case and a long distance from home, intending to use antitoxin in the morning if the disease showed signs of progress. November 7th, A. M.—Found patient better; temperature, 101° F., the throat looking better, and spot of exudate yellow and smaller. Continued same treatment.

November 7th, P. M.—Patient still better; temperature 100° F., exudate smaller, throat less sore; feels better generally. November 8th, A. M.—Tonsils almost free from membrane, a mere speck remaining; temperature 99°; general condition most favorable. In the afternoon the nurse telephoned that the temperature had risen to 101.5, and a croupy cough had set in. On arrival I found the boy's general condition worse; tonsils clean, but uvula and arches of palate swollen and edematous. Cough quite hard and croupy; respiration easy and natural. Continued same treatment with addition of hot applications externally to throat and moist air in room. November 9, A. M.—Temperature 103; membranous exudate appearing on uvula and tonsils; cough still croupy but no difference in respiration. Continued treatment, decid-

ing to use antitoxin at next visit if no improvement. November 9, P. M.—Temperature,  $103.5^{\circ}$ , tonsils, arches of palate and uvula covered with membrane; heart's action good. Having previously notified Dr. Ohlmacher to meet me he soon arrived, and proceeded at once to inject 1,000 units of the serum, the time being then about 6 P. M. November 10th, A. M.—Patient feels better, is quite bright, temperature 100, cough still hard and croupy, membrane thickened but showing evidence of disintegration at edges. Slight epistaxis, respiration still easy, no symptom of stenosis.

The cough showing no sign of softening, I deemed it wise to have the boy get another injection, which was given him by Dr. Ohlmacher about eighteen hours after the first one, the amount being the same—1,000 units. Urine was examined and found to be normal. November 11th.—Patient looking quite bright and lively, sitting up in bed interested in some pictures and books. Cough soft, the rasping, croupy sound much diminished. Nurse stated that the little fellow expectorated a large piece of yellowish membrane with several smaller pieces. On examining throat found both tonsils nearly clean; uvula still covered with a spongy-looking membrane, but less swollen. Had a second slight epistaxis early in the morning. Nourishment taken more freely and patient getting hungry.

November 12th.—Croupy character of cough entirely gone, throat clean except uvula, which still retained a thin exudate on tip; this was several days in disappearing, and the raw condition of the mucous membrane left by it caused much pain and distress in swallowing. The boy continued to improve from this time until he was allowed out of quarantine, two weeks afterwards. Slight paraplegia followed, which soon yielded to tonics, change of air, salt-water bathing and massage. Twelve days after all disappearance of membrane from the throat I passed a swab over the fauces, which, when subjected to the proper tests, gave the usual culture of diphtheria bacilli. A similar examination ten days later proved the throat to be free from the diphtheritic germs.

I have found weak acid solutions used freely after the throat is clean, as recommended by Wyatt Johnston,

to be very effectual in destroying the germs remaining.

After the injections were given no other remedies were used, except small doses of Dover's powder as sedative to the cough, until tonics were given. One of the best of these is Squibb's tinct. ferri mur., well diluted with syrup and rose water.

An interesting point in this case was the disappearance of the tonsillar membrane, with an improvement in the general condition, and the subsequent invasion of the uvula and tonsils from above, where certainly a post-nasal exudate must have been, as shown by the large pieces of membrane thrown off.

CASE II.—Called to see child two years old, February 20, 1897. History was that he had been sick about four days with a severe cough and high fever; cough had been croupy for two days. When I saw him the cough was quite hard and decidedly croupy in character; breathing slightly labored, showing evidence of commencing stenosis of the larynx.

On examining the throat I found several patches of spongy-looking membrane on each tonsil, appearing as if ready to separate; tonsils not much swollen, not red or inflamed. The case looked as if it had been one of tonsillar diphtheria, and as if the active effects of the bacilli had ceased, and the membrane had disintegrated and was about to be thrown off. Posterior wall of pharynx was clean. A swab passed over tonsils and pharynx proved on bacteriological examination that the case was diphtheritic and of virulent nature—a mixed diphtheria bacillus and pyogenic staphylococcus culture being obtained.

Feeling, on account of the oppressed respiration, that no time was to be lost, I called Dr. Ohlmacher, who at once injected 1,000 units of serum. This was about 5 P. M. of the same day that I was called.

No other remedies used except the application of ung. hydrarg. (half strength) over throat and covering by warm applications. February 21st, A. M.—Breathing easier, child bright and active, cough still hard and croupy. Kidneys not acting; had passed no urine since previous day, about twenty hours. Percussion over bladder showed that it was empty. Ordered hot poultices

over renal region. Dr. Ohlmacher was again called, and repeated the injection of 1,000 units, about fifteen hours after the first injection. Child takes fair amount of nourishment and stimulants. February 22nd.—Cough quite soft, croupy sounds all gone, breathing easy and natural; passed water freely during night; child very lively and anxious to get on the floor; remnants of membrane gone from tonsils, throat clean.

Convalescence proceeded in this case under the most adverse hygienic conditions; and at this date no after effects of the disease are perceptible.

This case would have been a typical one for intubation (which indeed had been urgently advised by an experienced and very competent physician who had seen the case before I was called), but the results in both cases show that antitoxin alone, if used at the proper time and in sufficient amount, is effectual not only in preventing the occurrence of stenosis, but in relieving it after it has begun. The condition of the blood has a great deal to do with the success or non-success of the serum. The longer the time that elapses from the onset of the disease before the use of the antitoxin, the greater will be the chances of failure. It is too much to expect a cure when time has been given for disorganization of the blood, with degenerative changes in the heart and nerve-centers.

I would call attention to the fact that the kidneys, in case II, acted freely after the second serum injection—a fact rather tending to prove that healthy serum does not produce nephritis or aggravate an already existing renal congestion. It was impossible to get any urine for examination.

A few words with regard to the necessity of establishing in Cleveland a municipal laboratory for the preparation of diphtheria antitoxin. It is vitally important, in using serum for hypodermic injection, to have an absolutely reliable article. While imported serums *may* have the above qualification, one is never certain of any of them, and when the use of such a remedy becomes necessary it is only just to both physician and patient that a serum may be readily obtained, the quality of which will be above criticism.

In a large city like Cleveland, from which diphtheria

is practically never absent, an establishment by the city of a place and means for the preparation of diphtheria antitoxin is an absolute necessity. A small charge could be made sufficient to cover the expense of material and bacteriologists' time, and not only Cleveland but the surrounding towns could be supplied. This matter should be agitated and pushed to a successful issue, as it means much towards reducing the diphtheria mortality in this city and vicinity.

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## A CASE OF TYPHOID FEVER WITH SECONDARY STREPTOCOCCUS INFECTION COMPLICATED WITH MENINGITIS.

BY A. P. OHLMACHER, M. D.,

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Within the short period of one year it has been the rare fortune of the writer to encounter at autopsy three cases of meningitis in typhoid fever. Two of these cases were examples of a purely typhoid meningitis, in that the typhoid fever bacillus was the sole organism obtained in the inflamed meninges. One of these cases was an exquisite example of purulent leptomeningitis, while the other one was a hemorrhagic pachymeningitis and catarrhal leptomeningitis. The record of these two cases will shortly be presented. The third and last case, to be now briefly reported, while belonging to the class of rare typhoid meningeal complications, is separated from the others because it is not a pure typhoid bacillus infection; and here a doubt may arise as to whether the primary typhoid infection or the secondary (?) infection was responsible for the meningitis.

### CLINICAL HISTORY.\*

*Typhoid fever, end of second week. A symmetrical tonic general spasm of flexor muscles preceding death. Characteristic typhoid lesions of intestines, spleen and mesenteric glands found at autopsy. Right-sided acute hemorrhagic pachymeningitis.*

\*Dr. L. B. Tuckerman has placed me under obligation in very kindly furnishing the clinical notes, and the opportunity of making the autopsy.

*Catarrhal leptomeningitis. Typhoid bacillus and streptococcus in blood and meninges.*

R. U., female, 24 years of age, was admitted to Dr. Tuckerman's service at St. Alexis Hospital March 14, 1897, with a history of three or four days' illness. Previous history and family history were not obtained, with exception of the fact that patient had never menstruated, and had been married two weeks.

Patient is dull, stupid, and sluggish mentally, though conscious. She is constantly picking at the bedclothes. The tongue is dry and brown, and sordes appear on the teeth. The abdomen is tympanitic, iliac fossa not tender, spleen not palpable. Respiration rapid; no cough. A severe diarrhea (ochre-colored stools) persists during illness. Temperature on admission (morning), 104° F., in axilla. In the evening temperature falls to 103.6°. For the next three days the evening temperature is slightly lower than that of the morning. On the 18th the temperature is 101° in the morning and 102° in the evening; at this time a retention of urine occurs which necessitated catheterization upon one occasion. On the 19th the morning and evening temperature is the same (101.4°), and on the 20th the temperature reaches 104° before death. Cold sponging and intestinal antiseptics were employed in treatment. In the morning of the 20th it is noticed that the patient has a spasmodic condition of the larynx, giving a clicking sound like hiccough; and further it is observed that there is a general tonic spasm of the flexor muscles of all the extremities, but especially marked on the left side. The head and eyes are turned to the right; the left hand, forearm and arm are flexed and adducted. The left leg is flexed at the knee and groin, and drawn over its fellow. The pupils are moderately dilated and fixed. The patient died at 11 o'clock A. M., March 20th.

#### AUTOPSY.

Twenty-four hours after death. *Body* of a small, poorly developed woman, 59 inches long and weighing about 90 pounds. The pelvis is narrow for a female of this age, and the whole build of the subject simulates that of a boy. The mammæ are small, flat, unpigmented

discs not more than  $\frac{3}{4}$  inch in diameter, with insignificant nipples. The mons is almost bald, though there is a slight growth of hair on the labia and in the axillæ. The *skin* is generally pale. A few discrete, small cutaneous vesicles are present in the right hypochondriac region. No other markings on the body. The *mucous membranes* of eyes, nose and mouth are pale. The *abdomen* is slightly and symmetrically distended and tympanitic. A moderate layer of subcutaneous fat covers the muscles of the trunk and abdomen, which are of good color. Both *lungs* are adherent by moderately firm fibrous adhesions, especially abundant posteriorly. The *left pleural cavity* contains 100 c.c. of clear yellow fluid, while the right side is dry. The *pericardial cavity* contains 50 c.c. of clear fluid.

The *heart* presents no gross lesion. The *left lung* is of good volume. It is more dense than ordinary and crepitates less readily. The section shows a general congestion and moderate edema. Small foci of deeper congestion and firmer consistency than the general substance are scattered through the lower lobe, and to a less extent in the upper lobe. The *right lung* exhibits only a uniform congestion and edema.

The *abdominal cavity* is dry and the peritoneal surfaces smooth and glistening. The intestines and stomach are moderately distended with gas. The *urinary bladder* is about half filled with urine. The *uterus* is a small (infantile) double-horned organ about 1 inch long and  $\frac{1}{2}$  inch wide and  $\frac{1}{4}$  of an inch thick. The *Fallopian tubes* are long and slender, with a complete though minute lumen. Two small pink bodies near the broad ligaments doubtless represent the ovaries. The *vagina* is single and moderately capacious.

The *liver* has a smooth surface. The substance is quite firm, and the color a little lighter than ordinary, due to a slight pallor of the peripheries of the lobules. No focal necrosis can be detected. The *gall bladder* contains 2 ounces of yellow bile, and is not inflamed. Aside from a slight pallor of the cortex and prominent vascular markings, no change is noted in the *kidneys*. The *spleen* is rather small (5 ounces), and the pulp is quite firm.

The mucosa of the *large intestine*, especially near its



cecal extremity, presents numerous small pigmented areas. No swollen lymph follicles and no ulcers are evident in the colon.

Beginning about a yard below the stomach the interior of the *small intestines* is sprinkled with swollen solitary lymph follicles which project into the lumen of the bowel as prominent, semi-spherical masses, both between the folds of mucous membrane and upon the ridges of the *valvula conniventes*. From the upper end of the jejunum to the second yard of the ileum the patches of Peyer have the "shaven-beard" appearance. Below this point the Peyer's patches are more prominently swollen with thickened edges, but generally unbroken surfaces. Only three patches show distinct evidences of beginning ulceration, one large oval area measuring  $1\frac{1}{2} \times \frac{3}{4}$  inches, in the long axis of the bowel immediately above the cecal valve, and two smaller areas about four inches higher up in the ileum. The *mesenteric glands* are swollen, red in color, and quite soft.

*Brain.*—The external surface of the dura, and the internal surface of the skull cap show nothing unusual. Looking through the dura, it is seen that a considerable surface to the right of the median line and posterior to the Rolandic region is of a greenish yellow color, quite different from the opposite side. On stripping back the dura it is found that the color of this area is due to the presence of a layer of soft, clotted blood in the sub-dural space over the right cerebral hemisphere, extending from the Rolandic fissure posteriorly to the tip of the sphenoidal lobe. The volume of this mass of clotted blood is about two ounces. An excess of serous fluid is also present under the dura. A few thread-like recent adhesions are encountered between the dura and pia about the medulla. The pia, especially on the right cerebral hemisphere in the region covered by the coagulated blood, is largely distended with clear yellowish fluid, which is less evident on the opposite side. The pial blood-vessels are uniformly filled with dark blood. Both lateral sinuses and the lower portion of the longitudinal sinus contain dark fluid blood and soft red clots. A further dissection of the brain shows only a slight increase in the fluid of the lateral ventricles.

*Microscopic Examination.*—The right cerebral hemisphere, as a whole, was hardened in formaldehyd solution (5 parts of the 40 per cent. solution to 100 parts of water). After several days' hardening, pieces of the cerebrum, including the pial covering, were removed and further hardened in formaldehyd solution, dehydrated in alcohol, cleared in cedar-wood oil, and imbedded in paraffin. By the preliminary hardening of the whole cerebrum the membranes were fixed in their normal relations to the underlying cortex. Sections were made from pieces of the middle of the parietal lobe (the portion showing the greatest edema, and covered with the sub-dural blood clots), and including not only the pia mater, but the underlying cortex and a portion of the medulla. Examination of a number of these sections shows the uniform presence of a cellular exudate into the spaces of the soft meninges. This exudate consists of large epithelioid cells with moderate sized vesicular nuclei, and of mono-nuclear small round cells, and a few small round cells with polymorphous nuclei. The small round cells are in preponderance, though the epithelioid (endothelial) cells are abundant. This cellular exudate is most prominent about the borders of the sulci near the larger meningeal vessels. It accompanies the extensions of the pia into the sulci. Here and there a group of the newly formed cells fills a space between the layers of the leptomeninges, and a pretty uniform layer lies between the proper cerebral substance of the gyri and the overlying layer of pia. There are no evidences of inflammatory alteration of the blood vessels or of the cerebral substance. Sections of the lower lobe of the left lung show groups of air-vesicles filled with loose epithelial cells and small round cells, but with no fibrin.

#### BACTERIOLOGY.

A fresh drop of heart's blood (right ventricle) was found to contain numerous cocci arranged in short chains or in conglomerate masses. Stained preparations from this blood revealed these streptococci more clearly. Smears from the spleen showed numerous short, straight bacilli among the cells of the spleen pulp.

Cultures obtained with all technical precautions from

the following sources have been studied: From beneath the dura before that membrane was removed, in the region of the hemorrhage; from beneath the pia mater; from the heart's blood; from the spleen; and from the mesenteric glands. Pure cultures of only the typhoid bacillus were obtained from the spleen and mesenteric glands. From the heart's blood, the sub-dural space, and from the pia, two distinct species were isolated, one the typhoid bacillus, and the other a streptococcus. From all of these sources the identity of the typhoid bacillus was established by the usual differential tests and by the Widal agglutination reaction. The streptococcus grew in small, round, delicate colonies on agar plates, and similarly on gelatine without liquifying that substance. The chains were mostly short in preparations from these media. Further differential culture tests and animal inoculations with this species were prohibited by the unexpected and early death of the cultures. Thus far no bacteria have been found in the meningeal exudate in properly stained brain sections.

In summary of this brief record it may be well to point out, first of all, that both the gross lesions of the intestines and mesenteric glands, and the bacteriological findings give undoubted evidence that we are here dealing with a genuine case of *ileo-typhus* fever in its second week. The bacteriological analysis of the blood and of the meningeal fluids shows, moreover, that the typhoid infection is complicated by an invasion of a streptococcus. There are both gross and microscopic evidences of a beginning left-sided broncho-pneumonia. Finally the macroscopic and microscopic examination leaves absolutely no doubt of the presence of a right-sided hemorrhagic pachymeningitis and of a catarrhal leptomeningitis, though these lesions are evidently quite recent.

From the clinical side it is seen that the suspicious evidences of meningeal affection only appeared a few hours before the fatal termination; while the pulmonary complication was not detected. The purely typhoidal symptoms and the corresponding post-mortem findings were not such as are usually looked upon as sufficient to explain death. Evidently then the secondary (?) strepto-

coccus infection and the meningitis played an important part in determining the fatal issue. How far the toxic element of the double infection, or how far the purely anatomical meningeal alterations were responsible for death is, of course, impossible to surmise.

It is reasonable to assume that the streptococcus invasion occurred by way of the respiratory tract, and in the presence of the pneumonic process and with the evidences of a general hematic streptococcus infection it is impossible to deny that these factors may have played the chief role in determining the meningitis. Finally, in the absence of definite anatomical and histological lesions in the meninges, the mere bacteriological discovery of either the typhoid bacillus or of the streptococcus, or of both organisms, could scarcely be looked upon as significant in the face of the mixed infection in the bulk of the circulatory blood.



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A NEW VOLUME (Vol. XII.) commenced with November, 1896. Subscriptions can begin at any time. Back numbers can be supplied.

ORIGINAL COMMUNICATIONS, reports of interesting cases, local news of general interest to medical men, are solicited from all readers. It is understood that original matter sent to the GAZETTE is not to be published as such elsewhere.

ALL MATTER INTENDED FOR PUBLICATION, all books and pamphlets should be addressed to the Editor, at 1150 Superior Street. All communications relating to business should be addressed to The Medical Gazette Publishing Co., 312 Prospect Street.

CHANGES IN ADVERTISEMENTS or addresses must reach us not later than the fifteenth day of the month preceding issue, to be corrected in the current number.

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## Editorial.

### ON THE EFFICACY OF DIPHTHERIA ANTI-TOXIN.

The efficacy of diphtheria antitoxin is an accepted fact with the majority of those who have had much experience in its use. But there remains a large number in the profession who need further inducement to employ it, while some bitterly oppose the new remedy with all their power. Notwithstanding that so many pages, chapters and volumes have been written for and against antitoxin, there still remains the necessity of careful reports of cases, such as Dr. Perrier presents in this number of the GAZETTE, and for honest expressions of opinion based upon experience such as this brief article purports

to be. The reader of current medical literature may have observed that most of the arguments used in the controversy are based upon studies of statistics. We regret that so many practitioners have been influenced now for and now against the remedy, according to the showing of the statistical table they happen to have read last. It has been amusing at times to see a writer inveigh against antitoxin, denouncing the statistics in its favor as fraudulent or deceptive, probably quoting that old saying about "three kinds of lies, viz., lies, d—n lies, and statistics," and then to see him proceed to clinch his argument by a rearrangement, a new classification of those same statistics to make them prove his side correct. We hold with Furneux Jordan ("Surgical Enquiries," p. 167), that "Statistical enquiry in the inexact sciences has misled as often as it has led. There are more avenues for errors to creep into statistics than there are avenues for errors to creep into the opinions of trained observers. If six competent surgeons tell me one thing, and the statistics of six hundred hospitals tell me another, I believe the six surgeons." We have one piece of advice for the opponents of diphtheria antitoxin and for those who, while not opposing, remain unconvinced by argument and decline to use it. It is this—just try it. First read some reports of cases by competent observers, and then, lest you doubt the evidence of others—*just try it for yourself*. You will see results such as you never saw under the use of other remedies. If you do not see them, you have lost our confidence in your powers of observation, for we have seen them for ourselves, in some dozens of cases which, if time ever permits, shall be reported. But don't take any man's word for it, nor trust any one's statistics; study cases and believe your own eyes.

The questions are frequently asked, "What brand of antitoxin shall I use?" "Which of the various makes in the market have you found reliable?" After using Behring's, the New York Board of Health's, Mulford's and Parke, Davis & Co.'s, as they appeared, we are prepared to state that they were all found to act satisfactorily. When the American preparations came on the market and were found equally good as the foreign, the use of Behring's was abandoned by the writer, for patriotic rea-

sons, and because the home-made product is less expensive.\*

Now while many practitioners need further persuasion to induce them to use antitoxin, there are some whose too implicit reliance upon it needs a warning. We have before now sounded this warning, but it must be done again. A case will illustrate. Being called at ten o'clock A. M., to make an aëroporotomy for laryngeal stenosis, we arrived upon the scene in forty minutes after the summons, and found the patient dead. The little patient, four years old, had diphtheria, and on the previous day had experienced difficulty in breathing. At three o'clock that morning antitoxin had been administered by two well-known physicians, who waited, relying upon the antitoxin to relieve the laryngeal stenosis. Probably it would have relieved it if given time—but in the meantime the patient died. This is an argument for the *early* use of antitoxin in diphtheria, but it is also an argument for the *early* employment of intubation or tracheotomy in laryngeal stenosis. Why wait till the patient is fatigued, the blood further poisoned for want of oxygen, the lungs engorged, or the patient actually dead from asphyxia—for want of intubation! This is not a solitary instance. We could relate more. They are too frequent. When the child is breathing with difficulty, aëroporotomy should be performed, antitoxin or no antitoxin. Do not harbor such blind faith in a remedy as to expect the impossible. Do not take chances on exhaustion or sudden strangulation while waiting for the remedy to do its work. The immediate demand is for more air. Intubation does not prejudice the patient's chances; and if the stenosis is relieved by the antitoxin, the tube can be soon removed. Don't forget and abandon a good thing because there is a noise made about a newer, albeit also a good thing. Don't progress backward.

\*The antitoxin made by Dr. Ohlmacher, at the Cleveland College of Physicians and Surgeons, came under our observation and proved first class; but we are speaking now of that prepared by manufacturing houses and supplied in the market. The doctor's experimental supply was limited in quantity. With a municipal laboratory at command, such as this city ought to support, the whole city and country around would be supplied.

## THE MEETING OF THE OHIO STATE MEDICAL SOCIETY.

The State society is to meet in Cleveland on May 19th, 20th and 21st, and has issued a very attractive program for that occasion.

We join with the profession of Cleveland in welcoming the State organization within our walls. We expect of the society scientific work of the first class. We hope medical politics will be left at home locked up in a closet. Though there may be no finer arts, there are nobler pursuits than wire-pulling.

We are prepared to see demonstrated that though not every good fellow is a good doctor, every good doctor is a good fellow.

There are a few other things we should like to see. We should like to see the State society express its approval of the State Board of Registration and Examination, and hold up its hands in the good work.

We should like to see the society take some action favoring a State examination of candidates desiring to enter a medical college.

We should like to see the State society sit down hard on dispensary abuses, putting itself on record as opposing free dispensaries, except as necessary appurtenances to medical schools, and opposing the establishment of medical schools in any but large cities.

We should like to see the brilliant composite mind of the society throw some light having solvent properties upon the knotty questions of expert testimony and of contract doctoring. There are many other similar things we should like to see, but the most sanguine does not expect the medical millennium this spring.

A very large attendance is expected, and while the scientific papers and discussions will be of absorbing interest and high merit, the social side of life will not be forgotten.

While great benefits accrue to science by association for exchange of ideas among her devotees; while professional interests are advanced by organization, making possible concerted action; while individuals are stimulated to aspire to the standard of the more learned and success-



ful members, or to high ideals held up before them—not least among the benefits arising from meetings of medical men are the friendships formed or renewed, cementing ties of mutual respect and esteem among men who are men as well as doctors.

We take pleasure in presenting our readers with a number of portraits of officers of the society for this year. We take it for granted readers will be glad to see them. Let not the quiet doctor who sits on the rear seat in a dark corner and says nothing all through the meeting go home wounded because he did not appear in our picture gallery. And let not the loud doctor who sits on a front seat and bobs up sixty times an hour to discuss every question, from the invocation to the benediction, say ugly things because he wasn't in it and somebody else was.

"Some men are born great, some achieve greatness, and some have greatness thrust upon 'em." Being "born great," let that suffice our bumptious critic, that he rail not if others "have greatness thrust upon 'em."

The officers of the society are as follows: F. C. Larimore, M. D., Mt. Vernon, president; M. Stamm, M. D., Fremont, vice-president; C. F. Clark, M. D., Columbus, vice-president; John S. Beck, M. D., Dayton, vice-president; George W. Crile, M. D., Cleveland, vice-president; Thomas Hubbard, M. D., Toledo, secretary; H. M. W. Moore, M. D., Columbus, assistant secretary; James A. Duncan, M. D., Toledo, treas.-librarian.

The committee of arrangements consists of Wm. H. Humiston, M. D., chairman; Joseph F. Hobson, M. D., secretary; A. R. Baker, M. D., treasurer (sub-committee on publication and printing); A. F. House, M. D. (sub-committee on finance and exhibits); J. E. Cook, M. D. (sub-committee on entertainment).

#### PRESIDENT.

President Frank Carter Larimore, M. D., of Mt. Vernon, was born in Columbus, April 12, 1846. He was graduated from Bellevue Hospital Medical College in 1869, and took special courses in Vienna in 1872-73. In the year 1875 he was married to Mary Frances Odbert. He does general practice, but gives special attention to surgery. He has been a working member of the

Knox County, the North Central, and the State medical societies, and has read papers on Diphtheria, Vaccination, and on the Radical Cure of Hernia. On the latter subject he has made original studies. He held the chair of Professor of Minor Surgery in Columbus Medical College from 1876 to 1886.

#### FIRST VICE-PRESIDENT.

Our first vice-president is Dr. Martin Stamm, of Fremont, Professor of Operative and Clinical Surgery in the Cleveland College of Physicians and Surgeons. Dr. Stamm was born in Switzerland, in Thayngen, Canton Schaffhausen. He was educated at the University of Berne, graduating in 1872, and the same year was married to Anna Marguerite Scheurer, of Berne. Although engaged in general practice, Dr. Stamm has always had a leaning to surgery, and most of his studies and writings have been in this line.

The *Journal of the American Medical Association* for December 9, 1896, has an article from Dr. Stamm on "Tuberculosis of Bones and Joints." The *Medical News* for February 1, 1890, published "A Case of Gastro-Enterostomy, Cancer of Pylorus." An article on "Intestinal Anastomosis" appeared in the *Medical News*, January 10, 1891. This article reported a modification of Senn's bone plates by adapting cartilage plates from the scapula of the calf and simplifying the arming of the plates (see also Treeve's "Operative Surgery," Vol. II., p. 540). Other contributions to current literature were: "A Case of Large Abdominal Echinococcus Cyst," *Med. News*, April, 1893; "Vaginal Extirpation by Schuchard's Method," *CLEVELAND MEDICAL GAZETTE*, Nov., 1894; "Resection of Kidney," *Columbus Medical Journal*, September 18, 1894; "Neurosis of Stomach," *ibid.*, January 22, 1895; "Intestinal Obstruction, Diagnostic Points and Treatment," *Cleveland Journal of Medicine*, September, 1896.

An article in the *Medical News*, September 22, 1894, details a new method of performing gastrostomy, the fistula being formed by a purse string suture.

We have overlooked an article on "Suprapubic Cystotomy in a Case of Enlarged Prostate," *Med. News*, August 31, 1889, and also neglected to mention in its proper

order one which appeared in the *Journal of the American Medical Association*, March 31, 1888, with the title, "Operation for Gall Stones—Congenital Absence of Gall Bladder." This reports the removal of three gall stones by what would now be called hepaticotomy, one year before it was performed by Kocher, who is usually credited with being first to do this operation.

## SECRETARY.

Dr. Thomas Hubbard, Secretary of the Ohio State Medical Society, is a member of one of the oldest families of the Western Reserve. Dr. J. C. Hubbard, of Ashtabula, an uncle, deceased in Cleveland at the time of the national convention in 1883, was for nearly half a century one of the prominent practitioners of northeastern Ohio.

Dr. Hubbard was educated at Western Reserve and the University of Michigan, and received his medical degree from the University of Pennsylvania in 1885. After three years of general practice, special studies were taken up in the Vienna General Hospital. In 1893 he was elected secretary of the society.

## ASSISTANT SECRETARY.

There is one officer of the society whose autograph you must secure before you can get return tickets at one-third fare. This man is the assistant secretary, Dr. Henry M. W. Moore, A. M., M. D., of Columbus. He'll be a very busy man at certain hours at the meeting, and he's a very busy man at home. Dr. Moore is Lecturer on Hygiene and Adjunct to the Chair of Obstetrics, Columbus Medical College; Lecturer on Bacteriology, Starling Medical College; Bacteriologist to the Ohio State Live Stock Commission, and to the Health Departments of Columbus and Springfield; Surgeon, First Regiment Light Artillery, O. N. G. The doctor was born in West Chester, Pennsylvania, May 30, 1862, but has never yet found time to get married; at least, we have never heard of his being wedded, unless it's to bacteriology.

## TREASURER.

The society's treasurer is Dr. James A. Duncan, of Toledo. Dr. Duncan is a Buckeye, born in Trumbull

County, January 8, 1848. He received his education in the University of Michigan and Bellevue Hospital Medical College, from which he graduated in 1872. In 1879, he was married to Miss Belle W. Jacobs. The doctor is a society worker in his city as well as in his State, and has been twice elected president of the Toledo Medical Association. He is Division Surgeon of the Wabash Railroad, member of the staff of Toledo Hospital, and Lecturer on Rectal Diseases in the Toledo Medical College.

The Grays' Armory, where the meetings are to be held and the exhibits displayed, affords an abundance of room and an admirable arrangement for the purpose.

We append the program of the fifty-second annual meeting, which is well worth preserving.

PROGRAM.

*Wednesday Afternoon.*

Prayer, Rev. Chas. Mills, Cleveland.

Address of welcome, J. G. W. Cowles, Cleveland.

Response, Dr. G. A. Collamore, Toledo.

Reports of officers and committees.

J. C. Reeve, Sr., M. D., Dayton, "A. C. E. as an Anesthetic."

Charles B. Parker, M. D., Cleveland, "The Use of Pure Oxygen with Chloroform in Surgical Anesthesia."

A. M. Bleile, M. D., Columbus, "On the Causation of Epilepsy."

D. S. Olmstead, M. D., Millersburg, "The Reflexes in the Etiology of Asthma."

N. R. Coleman, M. D., Columbus, "The Etiology, Diagnosis, and Treatment of Pleurisy."

F. S. Clark, M. D., Cleveland, "Pelvimetry; its Value in Obstetrics."

S. F. Forbes, M. D., Toledo, "A Tribute to Benjamin Rush."

R. Harvey Reed, M. D., Columbus, "The Preliminary Conduct of Intestinal Operations."

C. W. Goss, M. D., Lancaster, "A Limited Experience with Calomel in the Treatment of Catarrhal Pneumonia of Children."

N. Stone Scott, M. D., Cleveland, "X-Ray Injuries."

*'Wednesday Evening Session.*

Address.—D. N. Kinsman, M. D., Columbus, "Animal Tuberculosis and its Relation to Human Tuberculosis. Suggestions for its Control."

Address.—Henry O. Marcy, A. M., M. D., LL. D., Boston, Mass, "The Cure of Inguinal Hernia in the Male. Illustrated by the Stereopticon."

*Thursday Morning Session.*

C. F. Clark, M. D., Columbus, "Requirements for Admission to Medical Colleges."

Julian Harmon, M. D., Warren, "Further Legislation on Medical Practice."

Dan Millikin, M. D., Hamilton, "The Medico-Legal Aspects of Purpura Hemorrhagica."

F. W. Langdon, M. D., Cincinnati, "The Aphasias and their Medico-Legal Relations."

C. O. Probst, M. D., Columbus, "A Report on the Use of Antitoxin in the Treatment of Diphtheria in Ohio."

J. A. Thompson, M. D., Cincinnati, "Intubation for Laryngeal Diphtheria."

George A. Collamore, M. D., Toledo, "Impetigo Contagiosa."

William Thomas Corlett, M. D., Cleveland, "Clinical Demonstration of Diseases of the Skin."

Robert Sattler, M. D., Cincinnati, "The Surgery of Malignant Diseases of the Orbit."

J. C. Lawrence, M. D., Columbus, "A Report of Four Cases of Hydrophobia."

*Thursday Afternoon.*

Executive Session.—Reports of committees, election of officers, selection of place of meeting, election of delegates.

Annual Address.—F. C. Larimore, M. D., president, Mt. Vernon, "The Evolution of Aseptic Surgery and its Practice in the Country."

E. J. Wilson, M. D., Columbus, "Asepsis in the Lying-in Room."

C. S. Hamilton, M. D., Columbus, "Aseptic Treatment of Retention of the Urine."

J. E. Russell, M. D., Mt. Vernon, "Operating-Bag and Kit."

W. J. Means, M. D., Columbus, "Aseptic Technique of Minor Surgery."

H. S. Upson, M. D., Cleveland, "Writer's Cramp and Allied Affections."

F. D. Bain, M. D., Kenton, "Nervous Prostration."

M. Rosenwasser, M. D., Cleveland, "A Case of Intraperitoneal Gestation at Term. Operation after the Death of the Fetus. Recovery."

H. C. Rutter, M. D., Gallipolis, "The Establishment of a State Pathological Institute."

H. H. Spiers, M. D., Ravenna, "Heredity in Tuberculosis."

*Thursday Evening.*

Annual society banquet at the Grays' Armory.

*Friday Morning.*

S. C. Ayers, M. D., Cincinnati, "Shall we Operate Through the Upper or Lower Canaliculus?"

H. A. Rodebaugh, M. D., Marysville, "The Medical Treatment of Inebriety without Restraint."

William Lincoln, M. D., Cleveland, "Infectious Granulomata of the Nose, with report of two cases."

W. E. Wirt, M. D., Cleveland, "Hot Air in the Treatment of Chronic Joint Affections."

C. W. Tangeman, M. D., Cincinnati, "Purulent Inflammation of the Conjunctiva."

Charles J. Aldrich, M. D., Cleveland, "The Cutaneous Stigmata of Hysteria."

John M. Ingersoll, M. D., Cleveland, "Notes on the Etiology of Inflammation of the Accessory Sinuses of the Nose."

J. E. Woodbridge, M. D., Cleveland, "Typhoid Fever."

J. B. Alcorn, M. D., Gallipolis, "The Diagnosis and Treatment of Diseases of the Eye and Ear by the General Practitioner."

W. T. Howard, M. D., Cleveland, "Bacillary Hemorrhagic Septicemia in Man."

Eugene G. Carpenter, M. D., Cleveland, "Paresis."

Hunter Robb, M. D., Cleveland, "The Conservative Treatment of the Myomatous Uterus."

C. G. Gray, M. D., Ironton, "The Physician as an Expert Witness, and Other Professional Injustices."

F. F. Lawrence, M. D., Columbus, "Painful Menstruation."

J. S. Combs, M. D., Owensville, "Insanity."

Aside from the program of the regular sessions, there are included in the plans for entertainment a reception, given by the Cleveland Medical Society on Wednesday evening, a banquet at the Grays' Armory on Thursday evening, and on Friday afternoon clinics at the various hospitals, followed by a boat-ride on the lake, given to members and guests. The ladies are expected to attend the various social functions, and special provision has been made for their entertainment during the sessions of the society.

#### STANDING COMMITTEES.

Finance. — F. C. Gray, M. D. ('92), E. B. Fullerton, M. D. ('93), N. P. Dandridge, M. D. ('94), J. G. F. Holston, M. D. ('95), H. J. Herrick, M. D. ('96).

Ethics. — C. L. Van Pelt, M. D. ('92), J. H. Lowman, M. D. ('93), F. C. Larimore, M. D. ('94), J. C. Reeve, Sr., M. D. ('95), T. C. Hoover, M. D. ('96).

Publication. — C. N. Smith, M. D. ('92), J. C. Oliver, M. D. ('93), J. P. Sawyer, M. D. ('94), R. Harvey Reed, M. D. ('95), F. D. Bain, M. D. ('96), F. C. Larimore, M. D., Thomas Hubbard, M. D., ex-officio.

Legislation. — C. E. Beardsley, M. D. ('92), J. F. Baldwin, M. D. ('93), W. D. Hamilton, M. D. ('94), George A. Collamore, M. D. ('95), Charles Graefe, M. D. ('96).

Admission and Medical Societies. — A. R. Baker, M. D. ('92), C. D. Noble, M. D. ('93), W. C. Chapman, M. D. ('94), A. B. Richardson, M. D. ('95), J. A. Thompson, M. D. ('96).

Special Committee on State Medical Legislation. — N. P. Dandridge, M. D., chairman.

Special Committee on National Legislation. — L. B. Tuckerman, M. D., delegate.

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#### THE OHIO STATE PEDIATRIC SOCIETY.

This society, which is to meet in Cleveland on May 18th and 19th, is a young and vigorous organization. Its objects are "to study the anatomy, physiology, patholo-

gy and therapeutics of infancy and childhood, to encourage concert of action, to facilitate and foster friendship among its members, and to elevate the character and honor of the medical profession." Any practitioner regularly graduated from a reputable medical college, in good standing, is eligible to membership. The society endorses the code of ethics of the American Medical Association. It is hoped that the profession of Cleveland will give the State Pediatric Society a warm welcome. Its sessions will be open and all interested are cordially invited to be present. We append the list of officers and the program for this the third annual meeting: President, Dr. S. W. Kelley, Cleveland; first vice-president, Dr. J. P. West, Bellaire; second vice-president, Dr. D. L. Moore, Columbus; secretary, Dr. G. M. Clouse, Columbus; chairman of council, Dr. J. M. Dunham, Columbus. Committee of arrangements: Dr. D. S. Hanson, chairman; Dr. Frederick K. Smith, and Dr. H. S. Straight, all of Cleveland.

The first session will be on the evening of May 18th. All are requested to be present at five o'clock in the parlors of the Forest City House. At eight o'clock the meeting will adjourn to the dining room, where a dinner will be served. After dinner the papers and discussions will be resumed until a seasonable hour for adjourning. On the 19th, the second session will open at 9 A. M. and continue until the program is completed. Following is the list of papers:

Dr. William A. Knowlton, Cleveland, "The Importance to the General Practitioner of a Knowledge of Children's Diseases."

Dr. D. S. Hanson, Cleveland, "The First Care of the Baby."

Dr. Frank Warner, Columbus, "Intussusception."

Discussion opened by Dr. J. P. West, Bellaire.

Dr. T. V. Fitzpatrick, Cincinnati, "Examination of the Throats of Children."

Discussion opened by Dr. Charles Douglas, Detroit, Michigan.

Dr. F. S. Clark, Cleveland, "Injuries Received by the Child during Birth."

Discussion opened by Dr. R. E. Skeel, Cleveland.



Dr. T. W. Rankin, Columbus, a paper.

Dr. Starling Loving, Columbus, a paper.

Dr. W. C. McGee, Houcktown, "Cholera Infantum."

Discussion opened by Dr. Geo. M. Clouse, Columbus.

Dr. Frederick K. Smith, Cleveland, "An Operation for Phimosis."

Discussion opened by Dr. Wm. C. Bunce, Oberlin.

Dr. Charles F. Dutton, Cleveland, "Management of Precocious Children."

Dr. S. P. Wise, Millersburg, "The Relation of Schools to Health."

Discussion opened by Dr. Darlington J. Snyder, Reynoldsburg.

Dr. L. K. Baker, Cleveland, "Medical Inspection of Schools."

Dr. L. Woodruff, Alton, "School Hygiene."

Dr. G. W. Morehouse, Sparta, "Acute Broncho-Pneumonia."

Discussion opened by Dr. H. H. Powell, Cleveland.

Dr. Howard S. Straight, Cleveland, "Nasal Obstruction and its Consequences in Children."

Discussion opened by Dr. J. C. Bishop, Columbus.

Dr. G. Jamieson Martz, German, "Typhoid Fever in the Very Young."

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## Periscope.

### THE ACTIVITY OF SOLUBLE DISINFECTANTS.

According to the researches of Scheurlen and Spiro, reported in the *Münchener medic. Wochenschrift*, 1897, No. 4, the disinfecting power of soluble disinfectants is due to certain definite "ions" into which the substance is split up upon going into solution. Therefore potassio-mercuric hyposulphite is less active as a disinfectant than mercuric chlorid, because it does not contain the elementary mercury, but mercuric hyposulphite, as the metallic "ion."

The energetic germicidal action of certain organic mercury salts is ascribed to the poisonous radical  $H_2C_2H_3$ . The addition of sodium chlorid to dissolved disinfectant salts lowers their microbicidal action. Therefore a mercuric chlorid solution containing sodium chlorid is

a weaker bactericide than mercuric chlorid alone in solution. The conduct of such substances as phenol and alcohol is different, they being active through their entire molecule. In these latter disinfectants the addition of salts increases the bactericidal power. J. G. S.

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### Among Our Exchanges.

It is not so very frequently that the physician is called upon for advice where pregnancy is desired. More commonly his counsel is sought that he may recommend some recipe or appliance whereby coitus may be guaranteed not to eventuate in conception, but in those comparatively infrequent cases of *sterility* where offspring are desired, and where a previous gonorrhea on the part of the husband has not rendered him sterile, or, in addition, rendered the wife a possible candidate for the whole gamut of gynecological procedures, from curettement to total hysterectomy, it is well to bear in mind that old stand-by, *belladonna*, and its selective affinity toward the female sexual organs. DR. JOHN HARRIS JONES,<sup>1</sup> L. R. C. P. (Edin.), remarks that its employment is, in his experience, followed by more or less benefit in every disease to which these parts are liable, and in married woman who, though apparently enjoying the best of health, and never suffering from any irregularity of the sexual apparatus, are yet sterile, the exhibition of *belladonna* internally for some weeks is, in many cases, followed by pregnancy, so frequently, indeed, as to preclude regarding the occurrence as a mere coincidence. While venturing no theory as to the cause of reaction, the doctor has observed that the external genitalia become more relaxed, and the os and cervix more softened and pliable during the exhibition of the drug. The advent of the creamery with its centrifugal separator has thrown upon the market a large quantity of *separator milk*,<sup>2</sup> which is sold as skimmed milk among the poorer quarters of our large cities. The increase in its use is likely to become an important causative factor in the diseases of infancy and childhood among the poor who are unable to buy full cream milk, unless either its sale be limited, or people be taught how to use it. The digestibility of milk depends very largely on the cream globules held in suspension, which make the resulting curd a soft, easily separable mass, which the juices of the stomach and in-

<sup>1</sup>*N. Y. Med. Jour.*

<sup>2</sup>*Med. and Surg. Reporter*, Dec. 5, '96.

testines of the healthy child can easily disintegrate. Skimmed milk possesses far less fat and forms a harder curd, but yet there is enough fat left to render the curd, though less readily friable than full cream curd, nevertheless reasonably digestible, though requiring a longer time to disintegrate it and convert it into peptone. Separator milk, on the other hand, is wholly deprived of fat, and its curd is so tough and leathery that even with thorough mastication it cannot be brought into a condition resembling that of pure milk curd. Of course, those who sell separator milk for skimmed milk will argue that the nutritive value of the former, bulk for bulk, is greater than that of skimmed milk, and, indeed, that defense has been set up by parties in Philadelphia arrested for making the substitution. But the claim is specious, for the nutritive value to the system of any given food is the nutritive energy of the food minus the energy expended by the organism in its digestion and assimilation, and, measured by this standard, the nutritive value of separator milk is very low, as compared with pure milk or even with ordinary skimmed milk. In a mixed diet, separator milk has its uses, and its sale at a proper proportionate price, and as separator milk, should not be prohibited, but its substitution for and sale as the more valuable and readily digestible product should be rigorously prohibited and punished.

We should get better effects from calcium sulphid in coccus diseases of the air passages, so thinks DR. W. BAYARD SHIELDS,<sup>5</sup> of St. Francis, Ark., if we would use it in larger doses. In *tonsillitis* and *quinsy*, instead of giving one-quarter grain every two or three hours, as was his former custom, he gives a grain every hour till four doses are taken, then every two hours till six more doses are taken; then every three hours till inflammation subsides, which is usually in from two to six days. In *pneumonia*, also, he employs the sulphid in connection with quinin, giving four grains of the latter to one of the former every two hours for four doses, then every three hours in connection with 1.95 grain nitroglycerin, which latter he regards as preferable to alcohol as a stimulant in these cases, relieving the venous congestion, having no bad effect on digestion, and flushing the kidney, thus assisting to relieve the body of effete material. He has employed this method in fifty odd cases, and with a lower percentage of deaths than formerly.

In dealing with inoperable *epitheliomata* of the head and face, DR. I. N. BLOOM,<sup>6</sup> of Louisville, Ky., has been

<sup>5</sup> *Jour. Am. Med. Association*, Jan. 16, '97.

<sup>6</sup> *Med. Times*, Jan., '97.

using the lactic acid paste advocated by MOSETIG VON MOORHOF, several years ago. The latter recommended its use on the ground that the drug, being one of the feeblest caustics we have, attacked and destroyed cancerous tissue only, leaving the healthy tissue to granulate and repair the lesion. DR. BLOOM has been using the lactic acid paste for some twenty months, and in from fifteen to twenty cases of epithelioma of the head and face, with results that would seem to commend it to the favorable consideration of the profession. The obstinacy of *dacrocystitis* dependent on stricture of the lachrymal duct is as annoying to the patient as it is discouraging to the doctor, but DR. SAMUEL THEOBALD, of Baltimore,<sup>7</sup> maintains that this failure is largely due to the inadequate size of the probes used to dilate the duct. By a series of experiments on skulls and cadavers, he determined that the average diameter of the canal in the adult skull would permit the passage of a probe 4 mm. in diameter, and the smallest one found would accommodate a probe of 3 mm., which latter is nearly twice the diameter of the No. 8 Bowman probe. In the mucous-membrane-lined canal of the cadaver, he found the average size to be 4.47 mm., and in one instance a probe 5.25 mm. in diameter could be passed. To translate these figures into the more familiar nomenclature of the urethral sound, the lachrymal duct will accommodate a probe from No. 12 to No. 16 Fr., instead of a maximum of No. 6 Fr., which is a little larger than the No. 8 Bowman probe. In other words, DR. THEOBALD has made the same discovery relative to the lachrymal duct that DR. FESSENDEN N. OTIS did regarding the urethra, a quarter of a century ago, and "strictures of large caliber" obtain as well in the former as in the latter passage.

<sup>7</sup>*Ophthalmic Record*, Jan., '96.

## New Books.

LECTURES ON RENAL AND URINARY DISEASES. By Robert Saundby, M. D. Edin., Fellow of the Royal College of Physicians, London; Emeritus Senior President of the Royal Medical Society; Fellow of the Royal Medico Chirurgical Society; Member of the Pathological Society of London, etc., etc. With numerous illustrations. Philadelphia, 1897; W. B. Saunders. Galbraith, agent for Cleveland, New England Building. Price: \$2.50 net.

In 1889, Dr. Saundby published a series of lectures on Bright's disease, and in 1891 a series on Diabetes. This book includes the two previous books (of which every chapter has been rewritten), and besides, a section

on Miscellaneous Renal Diseases. This latter section has chapters on stone in the kidney—hydronephrosis, pyonephrosis, pyelitis, hematuria, and hemoglobinuria. On examination of the book we judge it to be a very satisfactory work, particularly in the subjects handled in the first edition. Taking up any chapter—for instance, Chapter V, on the Cardio-Vascular changes in Bright's Disease, or Chapter VIII., on Retinal Changes, one finds it systematic, clear, thorough and complete. And so through the subjects of Bright's Disease and Diabetes. One could wish the Miscellaneous Renal Diseases had been more extensively discussed. The bibliography is full.

**A MANUAL OF THE PRACTICE OF MEDICINE.** Prepared especially for Students. By A. A. Stevens, A. M., M. D. Lecturer on terminology and Instructor in Physical Diagnosis in the University of Pennsylvania, Demonstrator of Pathology in the Woman's Medical College, of Pennsylvania, etc., etc. Fourth edition, revised and enlarged. Illustrated. Philadelphia: 1896; W. B. Saunders. Galbraith, agent, New England Building. Price: \$2.50.

Another book from the house of W. B. Saunders, who seems to be doing his share of publishing acceptable medical books. It is very evident, as the author says, that this book is intended for students' use, for the whole subject of the Practice of Medicine is covered in 511 pages. While not belonging to the Question Compend Series, it is "essentially" of that character, although the questions are left out. However all the questions likely to be asked by any professor of practice are answered here, very concisely. The student will find in Dr. Steven's book all the important points in the practice of medicine picked out and plainly stated for his use.

**INEBRIETY: ITS SOURCE, PREVENTION, AND CURE.** By Charles Follen Palmer. New York; Chicago; Toronto; Fleming H. Revell Co., 1897. 109 pages. Price: 50 cents.

This is a very readable essay or little treatise, dealing with inebriety from the medico-moralist's point of view. While the writer takes the view that the inebriate is rather a diseased man needing treatment than a wilful criminal needing punishment, he does not discuss the subject of medicinal treatment, but the moral management both for prevention in case of those constitutionally inclined to inebriety and for cure in those addicted. It is a good book to put in the hands of the intelligent laity.

**OVER THE HOOKAH. THE TALES OF A TALKATIVE DOCTOR.** By G. Frank Lydston, M. D., Fellow of the Chicago Academy of Medicine; the Southern Surgical and Gynecological Association, and the American Academy of Social and Political Science; Prof. of Criminal Anthro-

pology in the Kent College of Law, etc.. etc. Illustrated from the author's designs by Mr. C. Everett Johnson. 618 pages, cloth. Chicago: Fred. Klein Company; 1896.

We are always pleased to witness the efforts of physicians in other fields than the medical. Every one of us should have a hobby, scientific, literary, artistic, as a means of wider culture—more than that—as a means of recreation, of relief from the routine of practice. And sometimes we have thought 'twere better if the collateral study or the hobby were not scientific at all, but something calculated to give quite a different turn to the thoughts and feelings, to bring into exercise the least used faculties, while the jaded rest. Many a time has the thought occurred as expressed by the entertaining stranger in "A Slave to His Passions." "It is a pity that doctors as a class do not do more in interpreting the emotional and sentimental side of life than they do. Literature would be better, and medicine none the worse, were there more literary doctors." The book before us is, as indicated in the title, composed of Tales of a Talkative Doctor, told to a medical student, the young friend of the old doctor. The doctor not only tells tales, but he expresses his opinions on a great many subjects which are apt to run through the brain of a doctor, the opinions being for the most part such as the profession will be willing to endorse, and expressed in a very entertaining way. The running accompaniment of praises to Nicotiana, with punch-bowl variations, are not just in accordance with our taste, but tastes differ; and to change the figure, they are a necessary flux in this compound of fun and pathos, satire, narrative and didacticism. Some will call the author prolix: but we are not disposed to be captious. These are the "Tales of a Talkative Doctor," and talkative people are apt to talk too much, so it is all in character; and besides, there is always a meaning—when he comes to it—and as much can not be said of every book that has been written. We beg to differ a little from some of the reviewers in choice among the tales and talks—and, by the way, the tales are better than the talks. While "The Passing of Major Merriwether" is probably the best thing in the book, "Poker Jim—Gentleman" is good, and "Old Abe as a Musical Critic" is not far behind. "The Rhodomontade of a Sociable Skull" has been a frequent choice, but there is really more ability, sense and skill displayed in the one we first mentioned, "A Slave to His Passions." It would be an omission of duty not to mention the beautiful drawings of Mr. C. Everett Johnson. They are excellent, and beautifully engraved, one of the attractive features of the book.

AN AUTUMN SINGER. By George M. Gould, A. M., M. D. Philadelphia, J. B. Lippincott Company, 1897.

The title of this volume of poetry refers to the author's time of life, but we are glad his age is not yet such that, like the swan, the singing presages death. May he live to sing more songs and edit more medical books.

Much has been printed under the delusion that it is poetry because it rhymes; and some supposed to be blank verse might be better designated as blankety-blankety-blank verse. While perhaps not every line in this little book would stand the test of the rules of versification, it contains many good thoughts, noble sentiments and poetic fancies, told in tuneful measures. We acknowledge being at once prejudiced in its favor by the fact that it is not the handiwork of a professional rhymester, but of a busy doctor, to whom poetry is but an occasional overflow of thought or emotion, or a gushing of

"The long stored flow,  
An Autumn singer's want and woe!"

This is as it should be. If every physician would find occasional diversion in some pastime as refining and elevating as the writing of readable prose or poetry, it would be better for the doctor and none the worse for his patients, though perhaps the reading public might suffer. But the public could stand it. No good doctor ever wrote prose or poetry that was not worth reading, while some of them—go and read Eugene Field's "Doctor Rabelais."

But we are wandering from the subject. Dr. Gould handles serious thoughts best, and is not so happy in lighter vein. Here is the first stanza from "The Love of God:"

"What mean we when we say we must love God?  
Contentment with thought-fashions, creeds?  
Atonement idle for our idle deeds?  
If love we have, we pass beneath His rod,  
And tread the lonely ways His feet have trod;  
We heal and bind the wounded heart that bleeds,  
With life and love fill full the heart that needs,  
Till breaks to spring our world, as flowers from sod."

For tenderness of sentiment as well as musical wording, here is a stanza from "Motherhood":

"In love's own old-time, foolish, fondling way,  
From very plenitude of tenderness,  
Her fingers grace with idle, soft caress,  
Whate'er they touch, and lingering they play  
With dreams and hopes in rapt forgetfulness."

Perhaps one of the best pieces in a more playful mood is a sonnet, "Her Laugh," and the wittiest is "My Critic." But we hope the reader has already made up his mind to buy the book, not only because a doctor wrote it and should be encouraged and commended, but because

the reader will derive much pleasure from the reading of it.

#### PAMPHLETS RECEIVED.

We classify as a pamphlet printed matter that is unbound, up to one hundred pages, and everything that contains less than thirty pages, even though bound; and as a book, everything above thirty pages, if bound, and everything above one hundred pages, even though unbound. In most instances any pamphlet noticed here may be obtained by request addressed to the author, enclosing a stamp. Kindly mention the GAZETTE.

INTRODUCTORY CLINICAL LECTURE. By L. Webster Fox, M. D., Phila., Pa. From *New England Medical Monthly*.

OPHTHALMIA NEONATORUM. By L. Webster Fox, M. D. From *Medical Council*.

VAGINAL LIGATION OF THE UTERINE ARTERIES FOR FIBROIDS OF THE UTERUS. By Augustin H. Goelet, M. D., New York. From *Am. Gynecological and Obstetrical Journal*.

SENILE ENDOMETRITIS AND VAGINITIS. By Augustin H. Goelet, M. D., New York. From *Medical Record*.

A CLINICAL STUDY OF A CASE OF DOUBLE CHORIO-RETINITIS IN THE MACULAR REGIONS, FOLLOWING A FLASH OF LIGHTNING AND A FLASH FROM BURNING LYCOPodium. By Charles A. Oliver, A. M., M. D. From *International Medical Magazine*.

NEW EVIDENCE THAT THE RECTAL VALVE IS AN ANATOMICAL FACT. (Illustrated). By Thomas Charles Martin, M. D.

FOUR CASES OF THIERSCH'S SKIN-GRAFTING FOR PTERYGIUM. By F. C. Hotz, M. D. From *Annals of Ophthalmology*.

THE DISPENSARIES OF NEW YORK CITY. THEIR USE AND ABUSE. By Walter Brooks Bronner, A. B., M. D. From *Medical Record*.

SPORADIC CRETINISM, WITH REPORT OF A CASE TREATED FOR SEVEN MONTHS WITH THYROID EXTRACT. By Dickson L. Moore, M. D., Columbus. From *Columbus Medical Journal*.

CESAREAN SECTION. Performed under the advice of H. H. Powell, M. D. By Dudley P. Allen, M. D., Cleveland. From *The American Journal of Obstetrics*.

THE EFFECT OF ANESTHESIA UPON TEMPERATURE AND BLOOD-PRESSURE. By Dudley P. Allen, M. D. From *American Journal of the Medical Sciences*.

THE TREATMENT OF DIPHTHERIA WITH DIPHTHERIA ANTITOXIN. By Edwin Rosenthal, M. D., Philadelphia.

NOTES ON THE TREATMENT OF FECAL FISTULAE. By Frederick Holme Wiggin, M. D., New York. From *The Medical Record*.

BI-CYCLING FOR WOMEN. Some Hygienic Aspects of Wheeling. The Puzzling Question of Costume. By Robert L. Dickinson, M. D., Brooklyn, N. Y. From *The Outlook*. Price, 25 cents.



**Society Reports.****CLEVELAND MEDICAL SOCIETY.***Regular Meeting, April 9th, 1897.*

The meeting was called to order by the president, DR. ROSENWASSER, at the regular hour, but owing to exceedingly bad weather the attendance was somewhat smaller than usual.

A minority report from the obituary committee was read by Dr. A. R. Baker.

In response to a request from the Cleveland Pharmaceutical Association that the society unite with them for the purpose of obtaining lower rates for telephone service, a committee was appointed by the chair to confer with other committees, and with officials of the telephone companies, in regard to the matter of obtaining terms.

A communication received from the Columbus Academy of Medicine was read by Dr. L. B. Tuckerman, chairman of committee on legislation, in which the coöperation of the society was asked, in connection with other societies, for bringing about a uniformity of examinations required for admission to the medical colleges of this State, placing the control of such examinations in the hands of the State Board of Examiners. Such action was approved by a unanimous vote.

Under the regular program of the evening, a patient was presented by DR. ALDRICH illustrating the subject of Traumatic Hysteria. The patient was a man 36 years of age, with good family history, who was injured by a falling derrick three years before. A graphic description of the resulting symptoms was given by Dr. Aldrich, and a full discussion of the case was made by Drs. Carpenter, Bunts, and Dr. Aldrich in closing. Dr. Bunts suggested that in such cases it was always well to make inquiry as to whether a lawsuit for damages was contemplated by the sufferer. He had often observed that these patients were more readily cured after such lawsuits had been settled.

DR. C. W. SMITH read a paper under the title of "Some Remarks on the Effects of Obstructed Respiration," the full text of which is published in this number (*p.* 387).

In the discussion DR. DUTTON remarked that the interesting paper just listened to was at least very suggestive. He would like to inquire what caused enlarged tonsils and the growth of adenoid tissue. He believed that the growth of such tissues might be traced to inherited tendencies, and thought that questions might be raised as to what bore the causative relation in producing the

symptoms mentioned. DR. KELLEY said he believed there were inherited tendencies, not only of diathesis but of physical conformation, which favor inflammations, obstructions, hypertrophies. Also he believed that some part of the improvement which so generally follows the operation of clearing the air passages may be due to tonics and hygienic measures employed at that time; but the greater part of it is no doubt due to the improved air supply, as is shown in cases in which foreign bodies are removed.

DR. TUCKERMAN said that a certain physician had remarked that children suffering from catarrhal troubles often began a speedy recovery after the inhalation of ether. The reasons for this action were not given by the advocate of the theory, but it was believed that a good ether drunk improved the condition of children at times, and a noticeable increase in growth would follow. Dr. Tuckerman would not personally vouch for the theory, but made the quotation as being of some interest.

DR. LUCAS said that he agreed with the writer that respiration was often occluded by foreign bodies, and recently he had removed gum, dress buttons, shoe buttons, and the like, for children at the Orphan Asylum, in connection with his work at that institution.

DR. CRILE said that the paper of the evening had been well prepared, and that he had listened to it with much interest. He had seen very marked results follow the removal of obstructions from the nose and throat, and believed that the effects were largely due to improvement of the respiration.

DR. SAWYER asked to what extent the irritation and swelling of tissues in the nose and throat are due to the toxic effects of septic bacteria, and how much effect can be gained by operative interference.

DR. SAGER remarked that hypertrophic growths were often due to vitiated air and the results of chronic inflammation. He would like to ask the writer if there was not such a thing as operating too soon in these cases. He had seen good results follow the use of sprays and bland washes and thought that the hypertrophic growths might sometimes be removed in this manner.

DR. TUCKERMAN asked if the percentage of catarrhal trouble was found to be greater in the center of this city than in the outskirts.

DR. SMITH, in closing the discussion, said that the remarks of the different speakers had been most interesting to him, as they had brought out many of the ideas which had suggested the writing of his paper. It was formerly believed that tuberculosis was inseparable from scrofula, and it is quite apparent that scrofulous children who suffer from enlarged glands are more subject to tubercu-

lar conditions than others; and they are certainly more subject to occlusions of the respiratory passages. Inherited tendencies undoubtedly have much to do with causing obstruction to respiration. It is a difficult question to decide as to what extent nasal irritation is due to toxic germs. Points of contact, so called, are known to be very irritating, and after they are removed inflammations are much less liable to occur, and colds are less frequently experienced. If these inflammations are due to irritating gases and bacteria, this fact would hardly be so apparent. Soothing applications and bland washes can hardly be relied upon to remove hypertrophic growths, and it is believed that surgical interference is necessary in most cases. Catarrhal inflammations were believed to be more common in the centers of large towns, as more people are there supplied by steam heat, and more are crowded into tenement houses, sweat shops and the like.

DR. E. W. HILL read a paper on the subject, "Treatment of Chronic Varicose Ulcers." The doctor said it was not his intention to review the history of such ulcers, and to quote all that had ever been said upon the subject, but simply to describe a method which he had found most useful in his hands, and which he believed was peculiar to himself. His method consisted in the use of charcoal poultices, followed by applications of cod-liver oil with strappings and bandages. He believed that the cod-liver oil acted as nourishment for the embryonic tissue, and no ulcer had refused to heal for him under such treatment.

DR. CRILE differed with Dr. Hill as to the cod-liver oil acting as a nutrient for the tissue cells, but believed that the favorable action was due to its protection of the tissues in a mechanical way. He had succeeded in curing some cases by dissecting out portions of the superficial veins.

DR. S. W. KELLEY, who was on the program for the report of a case, gave the society a very pleasant surprise in the nature of an original poem, entitled "The Doctor's New Year Resolutions," and it is hoped that the doctor will give the patrons of THE GAZETTE an opportunity of seeing the same in print.

*Regular Meeting, April 23, 1897.*

The Obituary Committee completed a report of deaths occurring in the society during the past year, including the names of Dr. W. J. Scott, first president of the society; Dr. Albert Hoover, Dr. C. O. Arey, Dr. W. R. Bricker, Dr. G. A. Deucher, Dr. O. F. Gordon, Dr. Clark Townsend, Dr. Josephus Craft, Dr. P. I. Spenser, and Dr. Wm. Caldwell.

The attention of the society was called to the coming meeting of the State Medical Society to be held in this city on May 19, 20, and 21, 1897. Dr. W. H. Humiston, chairman of the Committee of Arrangements, extended a cordial invitation to all members of the Cleveland Medical Society, who were not already members of the State society, to join them, and said that all will be welcome at the meetings, whether they are members or not. The State society now numbers about 900 members, and it is hoped to increase it to 1,000 during the coming session.

A paper was read by DR. H. D. HASKINS on the subject, "A Résumé of the Action of Drugs on the Circulation," and another by DR. C. F. HOOVER on the subject, "The Clinical Indications for Various Drugs Affecting the Circulation."

These papers were of unusual interest, and brought out an extended and instructive discussion. It was stated that drugs given with a view to regulating the circulation act as a rule upon certain tissues, the capillaries, arterioles, muscular fiber of blood vessels, vaso-motor nerves, vaso-motor centers, inhibitory nerves and their centers, being most commonly affected. The drugs receiving special comment were hydrastinin, camphor, caffeine, digitalis, nitroglycerin, amyl nitrite, spartein, alcohol, veratrum, physostigma, strychnin, aconitin and the nitrites.

Dr. Hoover said that no conditions offered better facilities to a physician for giving relief than those referable to the heart and circulation of the blood. He believed that a trained finger can detect all of the characteristics of the pulse which can be noted by the sphymograph. It is not sufficient, however, to note the condition of the radial pulse only, as the circulation in different parts of the body does not at all times correspond with that of the radial artery. The pulse may be taken over the brachial, ulnar, femoral and carotid arteries, and much which would be otherwise overlooked may be thus learned about the condition of the general circulation. He had never seen any condition which he believed would warrant the use of aconite, as no satisfactory reason could be given for depressing the myocardium.

DR. WIRT asked if he understood the doctor to say that aconite was never useful.

DR. ROGERS stated that his faith in the action of trinitrin had been shaken. Digitalis will often stimulate the left ventricle when trinitrin may disappoint. Alcohol does push up the flagging heart, and at times becomes a food. Digitalis is one of the safest drugs to give for a flagging left ventricle in some cases.

DR. BAKER remarked that experimentally he had found that nitroglycerin gives relief in a certain number

of cases of tinnitus aurium, and judging from the remarks of Dr. Hoover, it would seem that such results are obtained in cases of arterial sclerosis as described.

DR. SPENZER remarked that in giving camphor hypodermatically it would probably be better to use it in the form of an emulsion, and said that nitroglycerin in the system must form a nitrite.

DR. CRILE spoke of the action of certain drugs which regulate the circulation, as evidenced by the cure of headaches.

DR. C. W. SMITH said that in this connection he wished to call out the fact that drugs which relieve intra-abdominal pressure have a consequent effect on the circulation of the blood, and would especially call attention to the effects of nux vomica or strychnia, which answers the double purpose of stimulating the heart's action and increasing peristalsis of the bowels. Posture also has much to do with the circulation. In cases of anemia he had seen obstinate headaches relieved by belladonna through its action to determine a flow of blood toward the head.

DR. KNOWLTON said that many of the older practitioners had stumbled onto certain facts in regard to the cure of disease, which were being explained by modern students, and that much is now becoming clear on a scientific basis, which in the past has been clouded in mystery. It is quite obvious at the present time why some of the remedies given years ago proved so satisfactory.

DR. ROBERT POLLOCK believed that the action of strychnia during anesthesia was not always to be relied upon, and quoted instances where the effects expected could not be obtained even though the medicine was pressed to the point of producing other constitutional symptoms; he had seen cases where the substitution of ether after chloroform had given the required stimulation.

DR. L. B. TUCKERMAN said that a standing remedy with old Dr. Delamater for regulating the circulation, was a combination of opium, digitalis, blue mass and squills, and was given on all occasions.

DR. HANSON was disappointed that nothing had been said in regard to strophanthus.

DR. ROGERS said that opium has a special action on the ventricular systole, and quiets the nervous system.

The discussion was continued with much interest by Drs. Bunts, Aldrich, Campbell and others.

DR. HASKINS, in closing, stated that the action of strophanthus is similar to that of digitalis, but that digitalis is more active and reliable.

DR. HOOVER, in closing, stated that it is not safe to give opium where there is suppression of the urine, and still asserted that he could find no use for aconite. Ab-

dominal pressure often affects the circulation materially, and sometimes a cathartic is the only remedy required to restore a normal condition. He said that quinin acts like alcohol, in its stimulating effects, and in reply to the question asked by one of the speakers if the arterioles of the brain are supplied with muscular fiber, stated that he was not positive, but believed that they are so supplied.

C. W. S.

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CUYAHOGA COUNTY MEDICAL SOCIETY.

*Annual Meeting, April 1, 1897.*

The annual election of officers resulted in the choice of the following to serve for the coming year: President, Dr. W. A. Knowlton; first vice-president, Dr. W. C. Weber; second vice-president, Dr. F. E. Bunts; secretary, Dr. C. C. Stuart; treasurer, Dr. L. S. Chadwick; trustee, Dr. A. G. Hart; censors, Drs. Dutton, Henderson and Hanson. Drs. Corlett, Kelley and Hanson were appointed on the Program Committee.

DR. O. B. CAMPBELL delivered the annual address as retiring president, reviewing the work of the society during the preceding year, and presenting some recommendations for future work, one of which was that the society should devote each meeting to the consideration of some particular line of medical or surgical work.

DR. L. B. TUCKERMAN reported a case of traumatic stricture of the urethra in which there was complete occlusion of the natural passage, and the urine escaped through a fistulous tract of considerable length. In this class of cases he advocated and practised external urethrotomy as the only satisfactory method of securing a sufficiently large urethra, simple dilatation or internal urethrotomy being followed by so great an amount of contraction as to leave an inadequate passage.

DR. CHAS. J. ALDRICH read a paper on "Muscular Paradox as a Diagnostic in Hysteria." (See p. 393).

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MEDICO-LEGAL SECTION.

*Annual Meeting, April 15, 1897.*

The regular election was held, and the following officers chosen to conduct the affairs of the section for the coming year: President, Mr. Alexander Hadden; vice-

president, Dr. C. F. Dutton; secretary, Mr. Alfred Clum; chemist, Dr. John G. Spenser.

The committee appointed at a previous meeting to formulate a proposition for a law providing for an expert commission to assist the court in questions regarding insanity, made a preliminary report, and requested further assistance and instruction from the section in regard to further investigation in the matter. A discussion of the subject in some of its phases followed.

MR. A. H. WEED said that a commission to determine the fact, in a charge of insanity, runs counter to the provisions of the Constitution for trial by jury. The accused has the right to have the witness appear face to face before him. A law might be passed limiting the class of those entitled to be considered experts, and experts might be given the right to examine, but such laws might possibly be found to be unconstitutional.

MR. W. F. CARR said that it was a question of obtaining the truth in regard to facts. The whole jury system is a humbug. In admiralty law a jury is not necessary. Justice Brown, of the United States District Court at Detroit, had, in difficult cases, been in the habit of casting about for an expert who would be impartial—himself to take care of the law, the expert to take care of the facts. His decisions in such cases had never been reversed, either on the law or the facts.

DR. H. J. HERRICK asked who was to be regarded as an expert, and answered the question by saying that it was one who knows something special, and knows it thoroughly. This should be the central idea in selecting experts.

MR. HADDEN, speaking for Dr. E. G. Carpenter, one of the committee, who was not present, said that a law was wanted which would set the expert above the position of being regarded as a partisan advocate.

DR. W. A. KNOWLTON, speaking as a layman, said that medical expert testimony was not usually held in high esteem, that it was likely to be partisan and prejudiced. Witnesses may be honest in taking opposite sides on the same question of fact. A commission appointed by the State as expert witnesses would be more highly regarded than those selected by one side or the other.

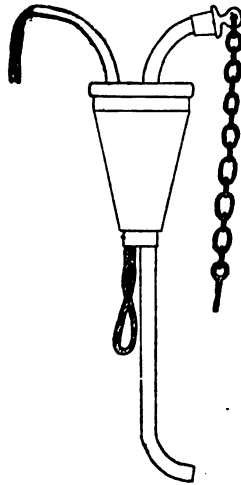
DR. A. R. BAKER thought that much of the discredit accorded to medical expert testimony was due to the low average grade of medical knowledge, but that the future promised better conditions by the weeding out of incompetent material.

## Correspondence.

CLARKSFIELD, O.

*Editor Gazette :*

In the administration of chloroform it is found to give much better results if given drop by drop, instead of being poured on the inhaler intermittently. The Esmarch bottle is a very convenient apparatus, but it is almost impossible to prevent the chloroform from coming out in a stream by spells, as it is ordinarily arranged. I have found that the difficulty can be very easily and perfectly overcome by drawing a loop of common wrapping twine through the outlet tube. This prevents a stream, and the flow can be perfectly controlled by tipping the bottle more or less. Capillary attraction and a siphon action maintain a steady flow, a drop at a time. In emergencies when the administration of the anesthetic has to be intrusted to an inexperienced person, this contrivance cannot help being useful. The accompanying cut illustrates the idea.



F. E. WEEKS.

## Notes and Comments.

**The Commencement Exercises** of the Medical Department of W. R. U., will be held on Tuesday evening, May 18th, at Association Hall, at 8 o'clock. The address to the graduating class will be given by Dr. Arthur T. Cabot, of Boston.

**The Alumni Meeting** will be held in the amphitheater of the college on the same day at 2 P. M., and will be followed by a luncheon, which is intended to take the place of a banquet in the evening.

**The Annual Report** of the Lorain Board of Health shows mortality statistics of 194 deaths for 1895, against 126 for 1896.

**Monthly Report of Cleveland State Hospital for April.** Number of patients in hospital March 15th, 1109; received during month, 37; discharged, 50; number in hospital April 15, 1096. Of those discharged, 5 recovered, 5 died, and 40 were sent to the infirmary.



**Youngstown City Hospital.** The trustees have employed an architect to prepare plans for the erection of a large brick addition, this summer, the present building being inadequate to accommodate all who apply for admission. Hereafter the rooms will be assigned to the patients of any reputable physician, no matter of what school.

**The Health Board of Hubbard, O.,** has been disbanded by the city council. They had not held a meeting for nearly a year.

**Dr. Bertha Wilson,** of Ironton, has been appointed one of the assistant physicians at the Columbus State Hospital.

**Dr. John S. Windisch, W. R. U., '94,** of Port Clinton, O., was married on April 20th to Miss Lucy Amelia Diffenbacher, of the same place.

**Degeneracy ad Extremum.** The world is revenged on M. Zola. He has said many things to it which the world does not like, and now all the world knows, on the authority of Professor Lombroso, the great criminologist, that M. Zola is an epileptoid, with prehensile foot, precocious wrinkles, gastric crises, anguish and vertigo after intellectual effort, and hystero-epileptic psychosis, or, at least, a paranoic psychosis. No wonder they could not find room for him in the Académie. With all these things he would want at least three chairs.—*The Scalpel.*

**The Tuscarawas County Medical Society** held a well-attended and profitable meeting on April 28, and elected their officers for the ensuing year. Dr. J. Blickensderfer, of New Philadelphia, is president; Dr. G. F. Lower, of Port Washington, vice-president; Dr. C. U. Patterson, of Uhrichsville, secretary; and Dr. S. R. Thompson, Uhrichsville, treasurer.

**The Journal of Cutaneous and Genito-Urinary Diseases** no longer bears the imprint of D. Appleton & Co., but, instead, that of the Physicians' Publishing Company. Drs. Jas. C. Johnston and George K. Swinburn have become its editors.

**Horseless Carriages for Doctors.** Dr. Carlos C. Booth, of Youngstown, seems to deserve the distinction of being the first physician in this country to adopt a horseless carriage for use in his practice. The doctor is inventive and has devised what he calls a motor cab, which he has used for several months. The cab is capable of making a speed of ten miles an hour on a level, and climbing a grade of

ten to fifteen per cent. at the rate of five miles an hour. It seems that, in sections of country where the roads are uniformly good, physicians will soon be able to abate the expense of keeping horses, and rely upon bicycles or horseless carriages.

**The Cleveland Medical Library Association**, as we are informed by the librarian, Dr. Bruner, has just been the fortunate recipient of a number of large and very valuable atlases, the generous gift of Dr. G. C. E. Weber. The friends of the library will be interested in knowing what a valuable addition this makes to the collection, as will readily be seen from the names of some of the authors, and can be more fully appreciated when the books are carefully examined. They include the following: *Atlas der Hautkrankheiten*, by Professor Dr. Ferdinand Hebra and Drs. Elfinger and Heitzmann, 1866, eight parts, each consisting of numerous large plates; *Die Skelette der Haussäugethiere und Hausvögel*, by M. I. Weber, 1850; *Icones Selectae Præparatorum Musei Anatomici Bonensis*, by Mayer, 1831; *Erläuterungstafeln zur pathologischen Histologie*, by Julius Vogel, 1843; *Tabulæ Nervorum Uteri*, by F. Tiedemann, 1822; *Traité Complet des Maladies Vénériennes*, Ph. Ricord; *Rosenmüller's Anatomische Tabellen*; *Lepidosiren Paradoxa*, by Bischoff, 1840; *Atlas zur theoretischen und practischen Geburtskunde*, by Busch, 1838; *Untersuchungen über die Vegetationsformen von Coccobacteria Septica*, by Dr. Theodor Billroth, 1874; *Medizinisch-chirurgischen Diagnostik*, by Schmalz, 1825; *Akiurgische Abbildungen*, by Blasius, 1833 (two copies); *Large Clinical Atlas of Obstetrics*; *Tabulæ Ossium Humanorum*, by B. S. Albinus, 1753; *Anatomisch-chirurgische Abbildungen nebst Darstellung und Beschreibung der chirurgischen Operationen nach den Methoden von v. Graefe, Kluge und Rust*, by Ludwig Joseph von Bierkowski, 1827; 123 large paintings of surgical operations, for teaching purposes. Another large atlas, *Taylor's Atlas of Venereal and Skin Diseases*, has recently been presented to the library by Dr. E. G. Carpenter.

The library is in a more flourishing condition than ever before, receiving frequent accessions of books, both old and new. Additional books are, however, always desired, as are also additions to the roll of members. For information concerning membership, which gives also all the privileges of Case Library, address the secretary, Dr. William E. Bruner, 514 New England Building, Cleveland.

**The Name of Dr. G. C. E. Weber** has been spoken of in

connection with the position of U. S. Consul at Nuremberg.

**Dr. J. L. Hess** has been **Reappointed** health officer of Cleveland.

**Dr. J. W. Prendergast**, of Cincinnati, has been held to answer to the grand jury on a charge of attempting to secure money from an Eastern firm of tablet manufacturers, to suppress prosecution by the Pure Food Commissioner.

**Dr. S. D. Brooks**, formerly Marine Hospital surgeon at Cleveland, and now stationed at Port Townsend, on Puget Sound, Washington, has been ordered to China and Japan to study epidemic diseases and inquire into quarantine methods.

**The Wayne Co. Medical Society** held its annual meeting at Wooster, on April 28. Dr. N. B. Dawson, of Sterling, was elected president; D. P. Shie, of Fredericksburg, vice-president; J. D. Beer, Wooster, secretary; D. H. McMillen, Orrville, treasurer; Dr. James Martin, Fredericksburg, and N. B. Dawson, Sterling, were elected delegates to the State Medical Society; D. H. McMillen and P. S. Greenamyre, Orrville, were elected delegates to the American Medical Association.

**The Trustees of Lakeside Hospital** held a meeting on April 14, electing the following officers for the ensuing year: President, Mr. Lee McBride; first vice-president, Mr. W. S. Tyler; second vice-president, Hon. S. E. Williamson; secretary and treasurer, Mr. H. C. Studley; assistant secretary, Mrs. Anna M. North; members of executive board, Lee McBride, Samuel Mather, A. A. Pope, Hon. S. E. Williamson, L. H. Severance.

**Virchow's Weapon.** The story is told that Professor Virchow, who cultivated politics almost as zealously as he did medicine, had been rather sharply and bitterly criticising Bismarck, who was then chancellor. Bismarck felt himself personally affronted and sent seconds to Virchow with a challenge to fight a duel. The doctor was found in his laboratory deeply engaged in experimental work, attempting to find a means of destroying trichinæ, which at that time were making great ravages in Germany. "Ah," said the doctor, "a challenge from Prince Bismarck, eh? Well, well! As I am the challenged party I suppose I have the choice of weapons. Here they are."

He held up two large sausages, which seemed to be exactly alike.

"One of the sausages," he said, "is filled with

trichinæ—it is deadly. The other is perfectly wholesome. Externally they can't be told apart. Let his excellency do me the honor to choose whichever of these he wishes and eat it, and I will eat the other."

Though the proposition was as reasonable as any dueling proposition could be, Prince Bismarck's representative refused it. No duel was fought, and no one accused Virchow of cowardice.

**The American Medical Association** holds its semi-centennial meeting in Philadelphia on the 1st, 2nd, 3rd, and 4th of June, 1897, and the meeting bids fair to surpass in the character of the entertainment, the scientific papers and the number in attendance, any meeting which has heretofore been held. The committee in charge have been able to obtain large and roomy places of meeting for the general and section meetings, all within a single block, and within very short walking distance, or immediately adjacent to the largest and most comfortable of the Philadelphia hotels.

For the week preceding and the week following the meeting, the committee of arrangements have also arranged for clinical courses which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in medicine and its specialties, and will afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia.

**A Special Train to Philadelphia**, with reduced rates, will be run from Chicago eastward, through Columbus, to the meeting of the American Medical Association. For full particulars, address Dr. R. Harvey Reed, Columbus, O.

**Iowa Physicians.** The *Western Med. Review* has news that about seventy-five Iowa physicians are going to attend the meeting of the A. M. A., at Philadelphia.

**The Louisville Medical Monthly** has suffered the resignation of Drs. Jas. B. Steedman and Geo. M. Warner from its editorship. It continues with Dr. Sam Cochran as editor and publisher, and Dr. C. W. Kelly, as editor.

**It is Edifying to Observe** the exchange of mutually complimentary notices that go on between journals of a certain caliber. It displays that brotherly affection and discriminating appreciation which are lovely to behold. But when the editor writes the complimentary paragraph, which his brother editor is to find a place for, he should change his style of composition. It mars the effect when the reader recognizes the mannerisms of the real source.

**Likewise when a Doctor gets an Appointment**, or some other notable thing happens to him which he would like to have appear in all the journals, for the sake of modesty let him have his stenographer vary the story a trifle as he mails out the notices. It is monotonous to see the same notice in the same identical words in the current number of every journal one picks up. The typewriter and the type do what they can to hide the identity of the writer, but it is as obvious and sometimes more so than his own handwriting would make it.

**An Epidemic of Scarlatina** is prevailing at Peninsula, Ohio. The people disregard all rules for limiting the spread of contagion. Dr. Geo. L. Haefele has been making praiseworthy endeavors to secure quarantine and disinfection. He has been opposed in his efforts, not only by the citizens generally, but by the local board of health, who say it "injures business" to spread the news of the presence of a contagious disease. They don't believe it's contagious anyhow; "It's just in the air, or a visitation of Providence, and if you're going to have it, you'll have it anyway." Dr. Haefele has communicated the state of affairs to Secretary Probst and made a visit to Cleveland to invoke the aid of Dr. W. T. Miller, as President of the State Board of Health, in securing an enforcement of the laws. That community should be thoroughly and promptly awakened to the fact that this is the nineteenth century and not the dark ages.

**The College of Physicians and Surgeons, of Chicago**, has recently become the Medical School of the University of Illinois.

**The American Academy of Medicine**, which is to meet in Philadelphia on May 29 and 31, announces the following provisional program:

THE ASSOCIATED DUTIES OF THE PHYSICIAN.

I. "The True Principles on which the Medical Profession should be Associated and the Character of the Resulting Organization." Lear-tus Connor, M. D., of Detroit.

II. "Physicians' Mutual Aid Societies." John B. Roberts, M. D., of Philadelphia.

III. "Quid Pro Quo—Present and Future." C. C. Bombaugh, M. D., Baltimore, Md.

IV. "The Relation of the Physician to the Public Press." Solomon Solis Cohen, M. D., of Philadelphia.

V. "Some Relations of Author, Publisher, Editor and Profession." George M. Gould, M. D., of Philadelphia.

VI. "Medical Reviews." Walter L. Pyle, M. D., of Philadelphia.

VII. "The Influence of a Liberal Education with Reference to Medical Ethics." Elmer Lee, M. D., of Chicago.

VIII. "Hospital Abuse." W. L. Estes, M. D., South Bethlehem, Pa.

IX. "Result of a Year's Endeavor to Lessen the Dispensary Abuse in the Rhode Island Hospital, Providence, R. I." F. T. Rogers, M. D., of Providence.

X. "Are Physicians Up-to-Date? a Sociologic Inquiry." Charles McIntire, M. D., of Easton, Pa.

The Academy will take a recess at about 6 o'clock and reconvene at 8 o'clock in open session.

XI. The President's Annual Address.—J. C. Wilson, M. D., of Philadelphia.

XII. "The Relation of Alcohol to Preventive Medicine." J. W. Grosvenor, M. D., of Buffalo.

XIII. "The Truth about Calomel." Everett Flood, M. D., of Baldwinville, Mass.

XIV. "The Great Physician of the Revolution: A Doctor sans peur et sans reproche." A. L. Gihon, M. D., Medical Director, U. S. N., retired.

XV. "Where Shall We Put Up the Bars? A Plea for Preliminary Education." A. L. Benedict, of Buffalo.

DISCUSSION: "THE RELATION OF THE COLLEGE TO THE MEDICAL SCHOOL."

XVI. "The Side of the Medical School." Bayard Holmes, M. D., College of Physicians and Surgeons, Chicago, Secretary of the Association of American Medical Colleges.

XVII. "The Side of the College." Ethelbert D. Warfield, LL. D., President, Lafayette College, Easton, Pa.

XVIII. "The Side of the University." William Pepper, M. D., LL. D., Ex-Provost, University of Pennsylvania, Philadelphia.

**Meeting of American Medical Publishers' Association.** The fourth annual meeting of the American Medical Publishers' Association will be held in Philadelphia, on Monday, May 31, 1897 (the day preceding the meeting of the American Medical Association). Editors and publishers, as well as everyone interested in medical journalism, are cordially invited to attend and participate in the deliberations. Several very excellent papers are already assured, but more are desired. In order to secure a place on the program, contributors should send titles of their papers at once to the secretary, Chas. Wood Fassett, St. Joseph, Mo.

**A Special Tour to Europe** and to the International Medical Congress at Moscow, is being promoted by a number of well known American physicians. We give here a synopsis of the trip which can be made in any one of three different sections, as the tourist may elect:

SECTION NO. 1.—New York, Gibraltar, Naples, Rome, Florence, Venice, Milan, Como, Menaggio, Lugano, Lucerne, Zurich, Munich, Linz, the Danube, Vienna, Warsaw, Moscow, St. Petersburg, Helsingfors, Abo, Stockholm, Christiania, Gotheburg, Copenhagen, Hamburg, Bremen, New York. Tour of 84 days, \$560.

SECTION No. 2.—Travel from New York with Section No. 1 round to Hamburg, thence as follows: Berlin, Dresden, Leipsic, Frankfort, Mayence, the Rhine, Cologne, Paris, Havre, New York. Tour of 93 days, \$655.

OPTIONAL ROUTE VIA ATHENS AND CONSTANTINOPLE. — Travel with Section No. 1 to Rome, thence independently to Brindisi, Patras, Constantinople, Buda-Pesth, Vienna, where the party will be rejoined. Tour of 84 days, \$595.

For further particulars address any of the doctors whose names follow: N. Senn, Casey A. Wood, Harold N. Moyer, Eugene S. Talbot, D. R. Brower, J. B. Murphy, D. A. K. Steele, B. T. Whitmore.

**An Examination for Internes** for the Cleveland City Hospital, held April 7, gave the following result: Alfred S. Maschke (Cleveland Coll. Phys. and Surg., '97) received the highest mark; John M. Firman (C. C. P. & S., '97), second; T. E. Griffiths (W. R. U., '97), third; and Robt. E. George (W. R. U., '97), fourth.

The examining committee consisted of Drs. H. G. Sherman, E. G. Carpenter, and Geo. D. Upson.

**"The Laryngascope,"** which was originated in St. Louis last year and has so rapidly sprung into fame and favor, is to make the report for the Laryngological Section of the New York Academy of Medicine this year, for the Southern Section of the American Laryngological, Rhinological and Otological Association; and also for the Western Association of specialists in these same lines.

This speaks well for western journalism, for the ability of the western specialists, and for the interest of general practitioners in diseases of nose, throat and ear. By and by somebody will make the great discovery that not all the medical brains of the country are located east of the Alleghenies.







*H. M. H. Moore*



### Original Articles.

#### SOCIETY vs. THE DEGENERATE.\*

BY HON. E. J. BLANDIN, CLEVELAND.

It is quite the proper thing, or, in the slang of the self-styled "elite," it is "good form" to proclaim that society must be protected from the degenerate. It is assumed, no matter how absurd, or how untrue, that "society" is guiltless, and has done its duty toward the degenerate, and that the latter contumaciously persists in his degeneracy to the vexation of "society," which is thought to be not his parent, but his benefactor. The separation of the race into "society" and "degenerates," as if "society" did not include also the degenerates, discloses the aptness with which some persons recognize and admit their own superiority. Not only do they admit this splendid superiority, but it seems to them so transcendent that they feel warranted in visiting vengeance upon their degenerate brothers, although their religion has taught them, or should, that "vengeance is mine, and I will repay, saith the Lord."

It is not the purpose of this paper to interrupt the satisfaction which comes from the indulgence of this feeling of proud superiority, much less to attempt any change or reform in the minds of those comfortable beings who indulge it. Nor do I hope to be able to entertain them with the reflections which follow; and it may be that the reasons for this will appear as we proceed. Neither am I

\* Read before the Medico-Legal Section of the Cuyahoga County Medical Society.

now concerned to examine or point out either the anatomical or psychical indicia by which the degenerate character may be known and recognized, save only to observe that when our brethren of the medical profession have done their best, they encounter a large class along the borderline, in which, when they attempt to classify them as being entitled to protection as part of society, or as beings to be defended against as degenerates, under the searching cross-examination of their legal brethren, they are quite liable to discover some of the few instances in which the "doctors disagree." True, the legal moralist, who has so deeply at heart the protection of society and the visitation of his vengeance upon the degenerate, is never troubled seriously with "border lines," only so his line is so drawn as to leave abundance of material on which to exercise his high powers usurped from his Lord.

On this occasion, I will not enter into that interesting inquiry, how much so-called degeneracy is directly or remotely due to vicious economic policies and erroneous social regulations for which "society" is directly responsible, and which it might correct, but will merely suggest to "society" the question as to how much it will feel disposed to punish that degeneracy which it has itself caused, and whether "society" or its victims are most deserving of vengeance; and also whether "society" would be willing, in that case, to leave the visitation of vengeance to the Lord; suggesting also, whether the so-called degenerate is not one of the instruments with which "society" is punished for its own degeneracy. Along these lines is an extensive field for interesting and useful reflection and study; but the special task I have set myself lies in a different direction.

Any ethical system which prescribes human duties, and visits their violation with penal consequences, must, of course, assume that the violations of duty are voluntary. Hence it is that we do not punish those involuntary actions we have, such as respiration, the beating of the heart, and those movements of the head or limbs known as chorea. Neither do we punish those failures to act, where the failure is involuntary, as in the case where paralysis prevents action. To this same group are re-

ferred all that class of involuntary acts known to us under the general term of accidents.

But when we come to other acts, usually styled voluntary, or such as result, as it is said, from the exercise of our will, if they violate some law of duty the actor is then said to be a proper subject for the administration of the prescribed consequences known as the penalty or punishment. This privilege, which society takes, to visit penalties upon those who do forbidden acts, proceeds upon the assumption that the act followed the determination of the will, and that the actor was able to have willed otherwise and so to have abstained from, or forborne the act; and so, having voluntarily chosen to act contrary to duty, knowing the prescribed penalty, he has exposed himself to the punishment and conferred upon society the privilege of visiting that penalty upon him. It is said he was free to choose, either to forbear the act and escape the penalty, or to do the act and suffer the penalty; and having chosen, or willed, to do the act and suffer the penalty, society is at liberty to inflict it.

I think I have fairly stated the ground on which penalties are usually justified or defended; and to test the soundness of the position we must investigate the premises from which the conclusion is drawn. It will be seen that the defense rests wholly upon the claim that the act was voluntary, or was the result of volition in the actor, and that he was free to choose and might have forborne the act complained of had he so willed, and that he could have so willed. Before proceeding to examine the assumption of the freedom of the will, let me suggest that the hypothesis must withhold punishment in all cases where the act was not voluntary; and in a rational sense no act could be classed as voluntary when the actor did not distinguish the nature and quality of the act. Hence arises the legal rule admitted by the judges, that where, by reason of insanity, the accused does not understand the nature and quality of the act charged, he is excused. Volition cannot be predicated of an act of the nature of which the actor was, for any cause, ignorant when he acted. Even if he willed the act, the most that could be said of him would be "he willed, he knew not what."

Let society then take solemn and serious notice, that

if in inflicting punishment it misjudges in any instance whether the act punished was or was not voluntary, then in such case it has violated the fundamental canon on which its whole jurisdiction was founded, and its erroneous judgment causes vengeance to break upon innocence. A right consideration of this plain truth would tame a little the blood-thirstiness of the lynching mob, or the legally constituted tribunal which sometimes, with a little more deliberation, it is true, hurries the victim to a dungeon or to death.

Since the justification of punishment rests upon the alleged freedom of the will, let us hastily examine the grounds for the assumption that the will is free. I think that if we attend to the meaning of words we employ in our effort to give clear notions of internal actions by articulate sounds, we will agree that freedom cannot be predicated of will, but only of actors or agents. Whether I am free or not free is not dependent upon my will. I may be under restraint and unable to depart, whether I will or do not will. I may will to continue in my present state, although if I willed otherwise I could not move. In that case I am not free, although I will to abide as I am. If you were falling from an elevation you could not stop by willing to do so. You would not be free to stop. Freedom may be predicated of a man or an agent, but not of the will, which is nothing but a power to choose or prefer. It is not, therefore, the will that has liberty, but the man; and the question then recurs, has a man liberty to will or not to will; and this I think is what is meant when it is disputed whether the will be free.

Willing, I think we can agree, is an action; and freedom consisting in a power to act or to forbear to act, when an action within a man's power is proposed to his thoughts as presently to be done or not, it follows that the man cannot be free to will or not to will the existence or non-existence of the proposed action.

The proposed action will or will not be; and the man has nothing left but to choose or prefer the one or the other, since one or the other of them must necessarily follow, and that which does follow follows by the choice and direction of his mind, that is, by his willing it; for if he did not will it, it would not be. His act of willing,

then, was the mere making choice between two states or acts, one of which states or acts being necessary and unavoidable. He cannot be said to be free to will that neither or that both should be; and so being under a necessity with respect thereto, he cannot be said to be free. The will cannot forbear willing when an occasion for exercising a choice is presented to the mind; and not being able to forbear willing, but being under necessity to choose or to prefer, is not free. If it be asked whether a man be at liberty to will which of the two he pleases, as motion or rest, the question carries a manifest absurdity in itself, for it is the same as asking if a man can will what he wills; and if he wills that which pleases him, it is the same as asking if a man can be pleased with that which pleases him.

When a choice between two actions, as, for example, a choice between motion and rest, is presented to the mind, if the will determines that choice, then the next question which arises is, what determines the will to direct the operative faculties to motion instead of to rest? What is it that moves the mind to set the operative faculties in motion, rather than to leave them at rest, which is the same thing as to ask, what determined the will to action rather than to rest? And here I think we touch the last analysis of our internal actions and their causes of which our intellects are capable.

When a man is in a state or condition of perfect contentment; when he feels no sort of uneasiness, and has no sort of unsatisfied desire, there is no will left but to continue in such state, and the will cannot be conceived to impel the man to act. I am not sure that such a state of unqualified content can be experienced by anyone in life, nor am I sure but such a state would be a state of death. But that the will, in such case, could not be determined to an action altering that condition of perfect content, I think every one who critically examines his impulses to action must admit. Anything short of this state of perfect content must imply at least some uneasiness, some desire to alter or change that state or condition. Desire to change the present state or condition, which is some uneasiness or disquiet, or dissatisfaction with that state, is what determines the will to a volun-

tary action to remove or to escape that disquiet or uneasiness, or to gratify that desire. Where there is no uneasiness, there can be no desire, and where there is no desire the will cannot determine us to act. The will, then, is determined by desire, and desire is in us always joined with uneasiness in our present state.

All pain of the body and all disquiet of the mind are uneasiness; and desire is nothing but an uneasiness in the mind for want of an absent good, and the will never determines us to action till this desire is felt, and then to the satisfaction of this desire.

If any one thinks that contemplation of good or of the greatest good determines the will, the error may be seen by a little reflection. Convince a man ever so much that plenty has an advantage over poverty, make him see and own that the handsome conveniences of life are better than wretched poverty, yet so long as he is content with the latter and feels no uneasiness in it, it determines not his will to any action that will bring him out of it. Let a drunkard see that his health decays, his estate wastes, that discredit, disease, want of all things, including his beloved drink, attends him in the course he follows, yet the return of the uneasiness and desire for drink determines his will to take it, even while he secretly admits its vice and folly and resolves that this shall be the last time he will act against the attainment of that greater good which is still present to his understanding.

So that the contemplation of good or of the greatest good can be efficient to determine the will to its pursuit only when it raises sufficiently the desire to achieve that good.

I need scarcely add, what will seem to be evident, that the desire which determines the will is not always single; but there may be a conflict of desires, one inclining the will in one direction, and another desire inclining the will in a contrary direction, and in this conflict the stronger desire must prevail and be at last the particular desire which determines the will.

Our actions, so far as they are voluntary, being determined by the will, and the will being determined by desire, if any one inquire whether we may have what desires we please, or whether desire may be voluntarily pro-

duced by us, I suggest that he try, when beset with violent toothache, to desire its continuance and increased intensity; or when suffering from severe burning, to desire more of the same sensation. If any one fancies that he can control his desires, rather than that his desires shall, by determining his will, control his actions, he would easily reach a justification of the visitation of vengeance upon one who did not control his desires; but he would find his friends still incredulous, when he protested that he had such control over his desires that he could, if he desired, love the man who debauched his wife or murdered his darling child.

Our view of the subject would be incomplete without considering how it is that desires come upon us, or what it is that moves desire. That desire is not voluntary in us, I think any one may be assured by candid and critical introspection. Fatigue will follow exhausting toil, hunger will follow long abstinence from food, thirst will attend fever, and these uneasinesses will be joined to desire to be relieved of each, and that equally without, or in spite of our volition in the matter.

Perhaps we get forward but slightly by varying terms; but John Locke, without whose wonderful treatise on the human understanding this part of this paper could not have been framed, puts happiness and that alone as the mover of desire. If I correctly understand him and the subject, it is our constitution and our environment, including past experiences and heredity, which together incite those desires which determine the will and so set us upon those various voluntary actions whereof the greatest part of our lives is made up. Being as we are and when we are, certain pleasures or pains are produced in us by the operation of certain objects either on our minds or our bodies, and in different degrees, and hence arise those desires to which I have alluded. What has an aptness to produce pleasure in us we call good, and what has an aptness to produce pain in us we call evil, and the desire for the one and aversion for the other, or desire to avoid or escape from the other, determine our will and set us upon those actions by which we judge the one may be secured and the other avoided. As to why we do not always have desire to



pursue what our best judgment accounts the greatest good, I shall have a word to say later. But first I wish to observe that desires may, in some degree, be influenced by consideration, reflection, and the examination of any proposed action or end that is presented to our minds. We have, also, as I think, a power to suspend desires during, and to await, that process of consideration, reflection, and examination, and until the judgment has been consulted, and the desires affected by that last act of the judgment; which desire, when so brought about, determines the will and puts us upon that action which seems likely to us to gratify the desire.

In this power of suspending the execution and satisfaction of desires pending this investigation lies the liberty a man has, and which is incorrectly called "free will." But it must be noticed that no one will either begin or pursue that investigation unless he has the desire to do so; so that if we look closely into the action of our minds, we will, while we defer action to investigate, still find that it is desire to investigate which determines the will to the act or thought of investigation, and merely suspends or defers another determination of the will to another action, until the examination is first concluded. It is plain that not always using aright this power of examination and investigation is what leads us into all those errors, faults and mistakes which occur in the conduct of our lives. When, however, we have judged and acted according to the desires which arise as the final result of the exercise of that judgment, we have done our whole duty; and it is not a fault, but the perfection of our nature, that we should desire, will and act in accordance with that judgment. If it were not so, we should be in the miserable state of having a judgment and of having exercised it, whence a desire arose to pursue the good thus made evident to us and desired by us, and yet being obliged to go counter to both our judgment and desire, which would be degrading to our judgment as our grandest endowment, and would at the same time render us subject to a sense of slavery and make us unspeakably unhappy.

If we come then to inquire why our desires, after reflection, are not always in favor of the greatest good,

and why the desires of all men do not coincide upon a given matter, it is plain that our judgments are not respectively capable of the same amount or accuracy of exertion, and are made up from almost infinite variety of capabilities and of knowledge of the facts necessary to perfect judgment. We estimate variously the force and effect of the various facts that serve as a basis for judgment, and we are more or less ignorant of factors which if known would modify the judgment, and we form these judgments while acted upon by our prejudices, our sympathies, or our passions, which vary in men as the number of stars in the heavens at night.

I think no one will contend that it would be desirable that all men should be so like all other men that all should know equally well all things that were known to every other, that their judgment of all things should be exactly alike, and that all desires should be exactly alike, and consequently all should act exactly alike. Indeed, life would under such circumstances be intolerable, and human society would be impossible. The supreme glory of the race and our highest enjoyment arise out of the variety which characterizes the human family. This could not be unless we accord to men the privilege to exercise their several judgments, and to let their desires depend thereon, and their wills be determined, and their actions to follow in natural order, as they do; so that instead of quarreling with, or complaining at the failure of our fellow-beings to see as we see, to think as we think, to act as we act, we should be more rational, if we rejoiced in the variety of human determinations and human actions.

I think it does not follow that because men do not always choose and determine upon those actions which really bring them pleasure, but rather misery or pain, that therefore those actions are not really brought about by their desires. It is rather that while they desired pleasure, they judged (incorrectly, of course,) that their actions would produce or be followed by the pleasure desired; and those wrong judgments that mislead us and make the will fasten upon the worse side, are due to our lack of sufficient data or imperfect weighing of related and associated facts; not that we do not in very truth

follow our desires. The wrong judgment I am here speaking of is not what one man may think of the determination of another; but what every man for himself must confess to be wrong, as not at last producing the pleasure, the desire of which was the determining cause of the action which followed upon the particular judgment. To suppose that one could be determined to an action by other than the belief that it would realize a desire he felt, and which he conceived would contribute to his happiness, would be to suppose that one could prefer misery to pleasure, which is, of course, absurd; not misery as we may count it, but as he counts it himself, which for reasons already shown may differ as widely as the notions of men differ, whereby one finds delight in books and knowledge which but vex and annoy another.

If we inquire whether it be in our power to change the pleasantness or unpleasantness that accompanies any sort of action, I think in many cases it is plain that we can, not absolutely, but to a limited extent, and that this extent will vary with different persons, and at different periods of life in the same person. The palate may be brought to relish what once it loathed. Ask one addicted to the tobacco habit. The relish of the mind is even more various than the body and, like it, may be altered. Habit and due reflection and consideration have much to do in effecting changes. Here come into view the means by which children, and adults, too, may be aided to the having desires which shall so determine their wills that their actions will accord with the best judgment of an aggregate community in producing happiness or what we may call the greatest good. Environment and instruction, and reaching correct reasoning, and due estimation of present and future pleasures, or good, as they will influence our own desires and actions, so they will influence the desires and actions of others, and I submit whether in this course of conduct does not lie the highest and most important social duty.

Perhaps also this was what Epictetus meant when he said "The educated only are free." Do men wish to live in error? No. Then those who live in error are not free. Do you wish to live in fear? Do you wish to live in sorrow? Do you wish to live in perturbation? By no

means. No one then who is in a state of fear or sorrow or perturbation is free. That education which would free us from every error, from fear, from sorrow, from perturbation, may seem to be beyond the common reach of all; and yet if all the beneficence of nature and all her gifts were wisely applied to the proper and healthful sustenance of the race, and the leisure thus afforded to all should systematically be employed in the cultivation of mankind, how nearly it would come to raising us to that standard or degree of knowledge I think none can exactly tell. I think also that but few thoughtful persons will be found who will not agree that the growth of what we call morality will ever be slow, while there is want of the necessities of life. I submit also whether this be not the social philosophy really sought to be introduced and developed among men by that greatest of moral teachers and wisest of social philosophers, Jesus of Nazareth.

I am aware that I shall be ferociously assailed by the strictly practical man with the all-sufficient and annihilating suggestion that there is no way to protect society against larceny but to punish the thief; no way to protect society against murder but to punish murderers. Well, to the practical man I answer, punishment does not belong to you, but alone to Omniscience, who cannot err. You may. How do you know there is no other way to protect society but by continuing a course of punishment which since history began has steadily proven a failure, and has protected society against neither theft nor murder? I ask the "practical" man, Who has assured you, or society, of safety? Is not the way of life through dangers lurking on every side? And though you escape ten thousand perils, must you not fall at last? Human life is not safe, or intended to be safe, against the elements. Neither is it safe, or intended to be safe, against the moral elements of man's nature. It is not safe against pestilence, or against war, against the thunderbolts of Heaven, or against the blow of the maniac. You can be safe only by being wise, not by being cruel. You can guard against war if you will cultivate peace. You can guard against the lightning, if you will study the laws of electricity. You may be safe against the maniac, if you will watch the causes of madness and remove them.

You may be safe against all the host of crimes set down in the laws of offenses against property, or you will learn the economic laws for the production and distribution of wealth and conquer your worship of wealth, and you will be safe from all the menaces of degenerates if you will learn the causes of degeneracy and remove them.

If you find satisfaction in the sacrifice of the murderer, and so add to the destruction of one life the destruction of another, it will not matter much that you have merely sacrificed a single life more. Both can be spared as well as if they had been destroyed by disease, and the world is not much the worse, except that judicial and social murder is vastly more demoralizing to the public mind than the murder by the degenerate. Coop up in your dungeon the thief and support him there and his keeper as well, and while you probably waste, rather than preserve, property, the world is not very much the worse off.

But while the "practical man" is thus tickling his narrow fancy with the thought that he is doing a glorious service to the world, he is not; and he is merely repeating the follies that have been tried in vain for centuries, by which to develop morality, and will be repeated with the same want of useful results until the more careful students of social philosophy shall prevail with a wiser and more humane creed. What the "practical man" will do with a human being he has caught and ground through his "motive-screening mill" is of very little concern; but that the students of social philosophy shall proceed upon correct lines, upon correct data and from a correct starting point, is of vast importance to millions of human beings that are and that are yet to be. The "practical man" rejoices that he is described by the poet in the following lines:

"For we are the same that our fathers have been,  
We see the same sights that our fathers have seen,  
We think the same thoughts, we see the same sun,  
And run the same course that our fathers have run."

They never progress. They are conservative; that is, they copy the past, errors and, all, and as they crucified Christ, so they mentally crucify, as one of their condemned degenerates, every man who, to avoid their errors

and the errors of their fathers, steps out of the rut worn deep with perpetual use by them and their fathers.

The test of responsibility or accountability known as the knowledge of right and wrong deserves at the hands of thoughtful men more than the passing notice time permits us to give it. If as the result of disease or insanity one does not know the difference between right and wrong as related to the act charged, some judges, not all, hold the actor excused. Now when is an act right or wrong? If we are to determine whether an act is or is not a legal wrong, we have only to compare the act with the law, and if it is not inhibited by that law, it is not a legal wrong. The law being certain, the determination of the act as being or not being legally right or legally wrong is equally certain by the comparison. With legal rights there is no difficulty. But that is not what is meant by the test.

When we get apart from the realm of legal rights and into the consideration of abstract rights, then with what are we to make the comparison from which to determine the character of the act as being right or wrong? If I test it by my own opinion and pronounce the act right, must others be bound thereby and agree with me? If I declare the act to be right and you declare the same act to be wrong, who shall decide between us? Then the decision of the umpire would be determination. In short, there is no other method by which acts may be classified as right or wrong but by the force of public opinion or the force of society. That this criterion may and does vary in different countries and places, and in the same country and place at various times and under various circumstances, no one can fail to observe. To roast a child for another's food would be unanimously accounted wrong in Ohio. But it would not be so accounted everywhere. To throw a child under the wheels of the juggernaut and crush it to death would not be accounted wrong in Orissa, although it would be murder in Ohio. The same act might be murder or worship, depending on the force of public opinion at the time and place. Whether playing cards for amusement on Sunday is right or wrong in Cleveland could not be unanimously established. Hence, it results that a given act is right

when public opinion would see the act done with approbation, or at least with acquiescence; and this is the definition of the term given by Prof. Holland, in his able work on jurisprudence; and Austin says that all that can be affirmed of rights generally amounts to a brief and barren generality. (Jurisprudence, Vol. I., page 393).

To drop the indefinite and almost absurd term, public opinion, and substitute a much more definite and intelligible term, "fashion," we come to know that acts must be classified as right when they accord with the fashion, and if the fashion is against the act, it is wrong. Otherwise stated, an act, such as card playing or working on Sunday, is right, if a majority of the people would approve it in themselves and in others. It is the estimation given to the act which is our only guide by which to classify it, as being right or wrong. True, each one may, and perhaps must, pronounce upon the act for himself, and may not be bound even by the view of the majority against him. If so, let him act accordingly. But when he judges the act of another as being right or wrong, nothing less than the majority can be permitted as the absolute determining criterion.

I venture to ask of those who may contend that we have concurring and innate moral ideas and sentiments, how it is that the slaughter of thousands on the field of battle can be not only excused but applauded, where the slaughter of a single man, perhaps a bad one, excites horror, unless it be that our moral feelings are subordinate to our intellectual faculties, and that acts are therefore judged to be moral or immoral, right or wrong, according to our estimate of their good or ill consequences or their approval or their condemnation by our fellow beings.

Lecky, in his *History of European Morals*, says, "The question of the criminality of abortion has been considerably affected by physiological speculations as to the time when the fetus in the womb acquires the nature, and therefore the rights of a separate being. The general opinion among the ancients seems to have been that it was a part of the mother and that she had the same right to destroy it as to cauterize a tumor upon her body. Plato and Aristotle both admitted the practice. The

Roman law contained no enactment against voluntary abortion till the time of Ulpian. The Stoics thought that the infant received its soul when respiration began. The Justinian code fixed its animation at forty days after conception. In modern legislation it is treated as a distinct being from the moment of conception."

That moral sentiments change and are subject to time and place, may be cultivated or lost or blunted, I think must be admitted; and hence moral codes or ethical codes may be developed, and among rational beings the means to that development and improvement is an object of high concern.

That such moral code and the moral duty thence resulting will be felt and understood and obeyed by all alike, is to suppose that all men will be alike, which finds no warrant in any correct understanding of mankind. When, therefore, we are set, or we set ourselves to judge upon the acts of another, and to approve or to condemn that other according to his capacity to determine right from wrong, we shall see in the varying judgments that take place upon the same act, at the same time and place, and at distant times and places, a very urgent reason why in the particular case we ought first to invest ourselves with the grace of Omniscience so that we might judge with something more than the combined judgment of all mankind, because to err would be to put ourselves in the place of the criminal and convert the accused into a martyr.

It seems to result that the right and wrong test comes to be not much other than an inquiry as to the acquaintance of the accused with a varying fashion, and depends for its certainty, first, upon the fact of the existence or non-existence of the fashion, whether set by the majority or not, our own perfect understanding of the particular fashion, the same understanding of the same fashion by the accused, and a certain failure of the acts charged to correspond to the fashions as understood to exist by both the judges and the accused. How much or how little there is, then, in such a legal maxim, by which to determine the destruction of a human life by the power of society, I leave every one to say for himself; but it seems to me that the test rests upon no more satisfact-



ory basis than that of expediency for want of some more rational and intelligent one; and it seems to me also to be the province of the sociologist to discover and supply a better one.

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## A CLINICAL STUDY OF THE PFEIFFER-WIDAL TYPHOID REACTION.\*

BY LOUIS DYSART, M. D.,

Hospital Americano, Tampico, Mexico; recently Resident Physician at the Cook County Hospital of Chicago.

Since the first announcements of the clinical application of the "agglutination reaction" in the diagnosis of typhoid fever, by Widal, great interest in the subject has been excited, and the method is being carefully tested by bacteriologists and clinicians in all parts of the world. The diagnostic value of the method can only be determined by a study of a large number of clinical cases, and by a careful analysis of the statistics thus obtained. The greatest interest in this test naturally lies in its application to those conditions which are like typhoid fever in their clinical aspects.

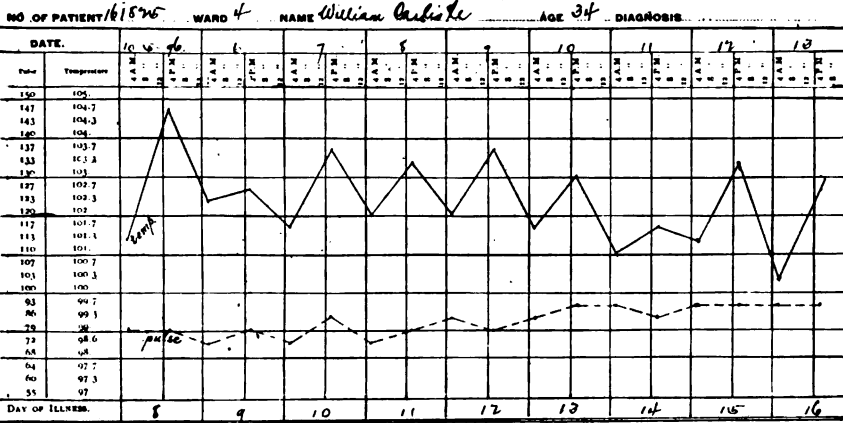
The following observations made by the writer during the months of September and October, 1896, in the wards of the Cook County Hospital, are presented principally on account of their clinical and statistical significance. The opportunities for making this study were exceptionally good, as a large amount of typhoid fever was at the time endemic in Chicago, and a considerable number of cases of this disease were available for examination in the hospital during these two months.

The majority of the tests were made by making an emulsion of typhoid bacilli in a drop of water upon a glass slide. Three or four drops of blood were then obtained upon another slide, and by touching the blood with a loop of platinum wire the serum collected on the outside of the drops was transferred to the emulsion of typhoid bacilli, with which it was thoroughly mixed. Care was taken that few corpuscles should be mixed with the emulsion, as they obscure the field; also that the bacilli

\*Presented before the Cook County Hospital Clinical Society, November, 1896.

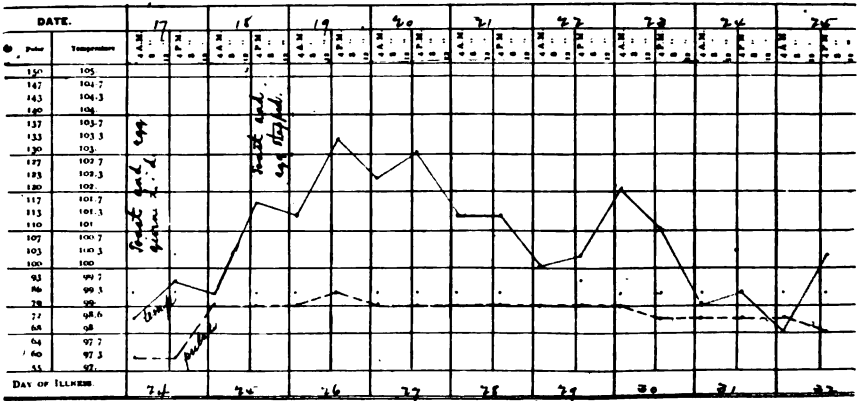
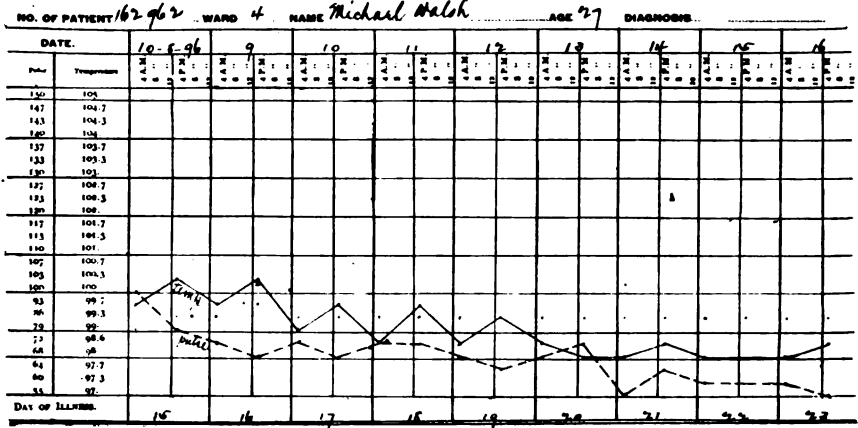
# COOK COUNTY HOSPITAL

## TEMPERATURE CHART.



# COOK COUNTY HOSPITAL

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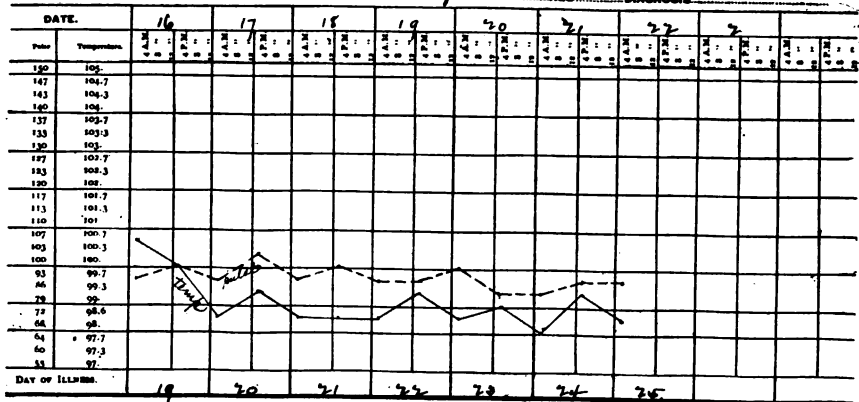


CASE II.

# COOK COUNTY HOSPITAL.

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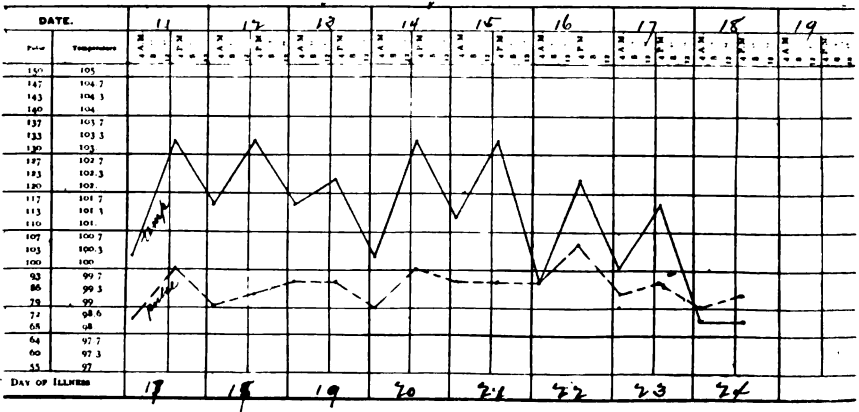
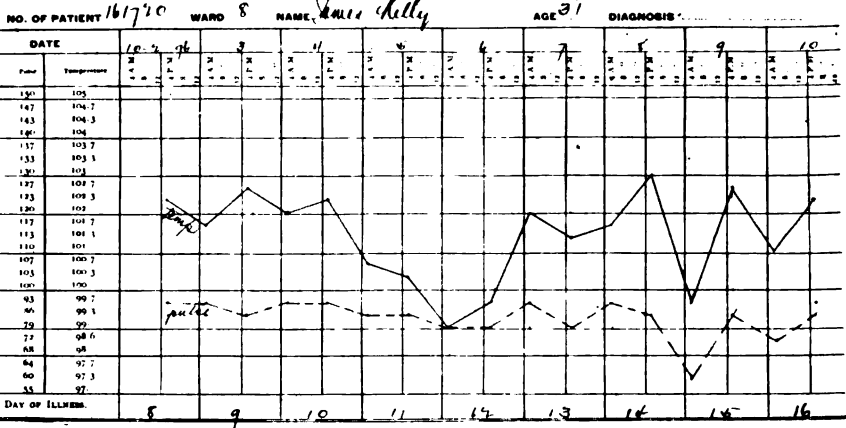
NO. OF PATIENT 162330 WARD 8 NAME Harriet Westfall AGE 33 DIAGNOSIS



CASE IV.

# COOK COUNTY HOSPITAL

## TEMPERATURE CHART.



CASE V.

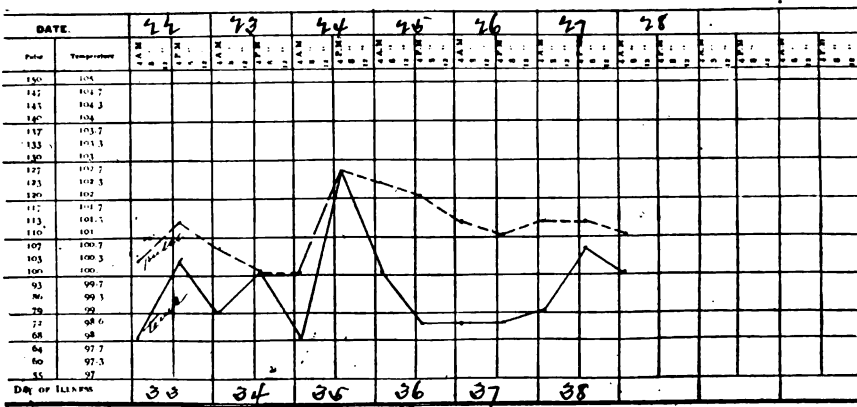
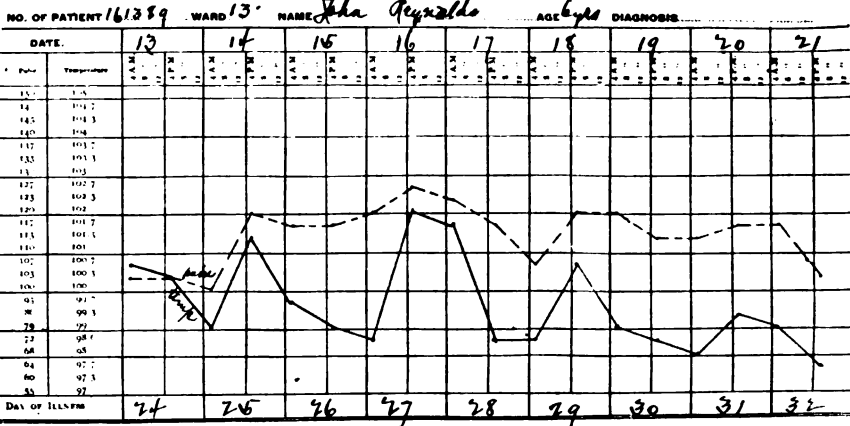
**TEMPERATURE CHART.**

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DAY OF YEAR		15		16		17		18		19		20		21		22		23	

### CASE VI.

# COOK COUNTY HOSPITAL.

## TEMPERATURE CHART.



CASE VI.—Continued.

### TEMPERATURE CHART

REMARKS.

للبنك

REMARKS :

slight dull  
Hard dull

*Epidaxia*

*Epistaxis.*

### CASE VII.





were thoroughly emulsified so that no clumps should be present before the addition of the serum.

A cover glass was then placed over the emulsion and the slide examined with an oil-immersion lens. Hanging drops were also made in like manner. Other tests were made according to the method of Pfeiffer, which consists in adding blood serum to an emulsion of typhoid bacilli in a test tube and noting the formation of clumps, as seen by the microscope, and the precipitation of the bacteria to the bottom of the test tube, as shown by the clearing up of the fluid and the appearance of flocculi in the bottom of the tube.

In eighty-nine cases of typhoid fever where the clinical diagnosis seemed positive, and in some of which the post-mortem findings were those of typhoid, the bacilli rapidly gathered in clumps, some of which were large, others of medium size, and the bacilli rapidly lost their motility. The clumping in many of the cases was marked as soon as the specimen could be placed under the microscope, and in all it was evident at the end of three to five minutes.

The following is a list of cases tested with negative results: Follicular entero-colitis, two; atrophic cirrhosis of liver, one; chronic endocarditis, one; tertiary syphilis, one; tubercular enteritis, one; adhesive pleurisy, tuberculous (?), three; myocarditis, dilated heart and peritoneal effusion, one; malarial fever, eleven; pleurisy with effusion secondary to lobar pneumonia, one; lobar pneumonia, four; acute articular rheumatism, one; lead colic, two; tuberculosis of hip, one; asthma, one; carcinoma of stomach, two; dysentery, acute (not amebic), one; chronic rheumatism, three; pulmonary tuberculosis, four; tetanus, two; syphilitic paraplegia, one; gonorrheal urethritis, two; multiple neuritis, one; nephritis, three; cerebral hemorrhage, one; intestinal infection, stercoræmia, three; hysteria, one; insanity, one; miliary tuberculosis, three; making a total of fifty-nine cases in which typhoid fever was excluded both by the clinical and pathological findings, and in which the "agglutination reaction" was negative.

The reaction was obtained in one case of acute articular rheumatism, one of chronic rheumatism, and one

of malarial fever. The patient with acute articular rheumatism had never had typhoid fever. The patient with chronic rheumatism had typhoid fever thirty years ago. The malarial fever in the third case was tertian in type, and the diagnosis was confirmed by microscopic examination of the blood. No history of typhoid fever was obtained, as the history sheet was misplaced before full notes were made of the case. In each of these cases the reaction in the hanging drop was rapid and pronounced.

In two cases in which the diagnosis of typhoid fever seemed positive, the clumping did not occur in five minutes, but when the Pfeiffer method was used marked clumping occurred at the end of one hour, with considerable precipitate in the bottom of each tube. One of these patients has since died, and the pathological findings were lobar pneumonia, typhoid ulceration of the Peyer's patches and solitary follicles of the small and large intestine, acute enlargement of the mesenteric glands and spleen.

*Two cases in which the diagnosis of typhoid is not positive, and in which no reaction was obtained by the simpler method, but in which the Pfeiffer method was positive.*

CASE I.—W. C., colored, age 34 years; was admitted to ward IV. of the Cook County Hospital, October 5, 1896. The history of present illness is as follows: Has been sick one week, confined to bed four days. Has had anorexia, nausea, vomited once, diarrhea, no cough, no chills, has slight dyspnea, vertigo, and slight chilly sensations.

He was a patient in ward VI. of the Cook County Hospital, from March 15, 1892, until April 15, 1892, suffering from acute articular rheumatism complicated by an endocarditis. He was readmitted May 1, 1892, and the physical examination was as follows: General nourishment is good; eyes are negative; tongue is negative.

*Heart.*—The apex beat is diffuse and located in the fifth interspace one inch to the left of the nipple line. Base is at third rib. Precordial pulsation is diffuse, and there is a distinct tap felt over the base which is synchronous with the second sound and considered to be due to closure of pulmonary valves. Percussion gives the base at the second rib, left border two and one-half

inches to the left of the mammary line, and right border at the right parasternal line.

*Auscultation.*—Over the apex is heard a loud, harsh murmur, systolic in time, and transmitted to the left and downwards. A slight presystolic murmur is heard over the mitral area. The pulmonary second sound is accentuated. Lungs are negative. Abdomen is negative.

*Extremities.*—The feet are edematous. The right knee and right hand are swollen and tender to pressure.

*Urine,* acid, specific gravity 1.010, no albumin, and no microscopic findings. Temperature was normal except on two occasions, and then it was 100.4° and 100°. Diagnosis, mitral regurgitation. Discharged May 23, 1892.

October 5, 1896, on readmission:

*Urine,* acid, specific gravity 1.073; albumin present and numerous granular casts. Mind is clear. Body well nourished. Pupils react to light and during accommodation. Tongue is heavily coated with white coating, and is moist.

*Chest.*—Development is fair. Respiratory excursions are deep and regular. Lungs are negative. Abdomen is negative. Liver dullness extends from the sixth rib to the costal arch. Spleen is not palpable. Slight general lymphatic enlargement. Legs are edematous and present a few scars.

*Heart.*—The right border is at right of sternum, base is at third rib, left border is four centimeters to left of mammary line, and the apex beat is in the fifth interspace.

*Auscultation.*—There is a systolic murmur heard best over mitral area and transmitted to the left, also a murmur which is systolic and extends over into the diastole and is very superficial, differing from the other systolic murmur. The pulmonic second sound is greatly accentuated. Face is edematous. Skin is dry. Temperature, pulse, and respirations as per chart.

*Differential Diagnosis.*—Acute exacerbation of a chronic endocarditis.—This could account for the temperature, for the nephritis, for the pericarditis, for the gastroenteritis, but would not account for the slow pulse, except that in attack of 1892 he had brachycardia, 40 to 50 per minute. Typhoid fever.—The temperature curve is that of typhoid fever, as well as the slow pulse. The failure

to palpate the spleen owing to a distended abdomen or rigid muscles occurs frequently in typhoid. The nephritis could be accounted for by typhoid fever or could be a chronic nephritis. Absence of delirium slightly against typhoid fever.

CASE II.—M. W., white, male, aged 27 years, was admitted October 8, 1896, to Cook County Hospital. Family history.—No tuberculosis. Personal history.—Has lived in Chicago nine years. Drinks alcoholics moderately. Uses tobacco. Denies all venereal trouble. Present illness began two weeks ago with severe headache, malaise, nausea, diarrhea, epistaxis, slight cough, and pain in hypochondrium. Previous diseases—Rheumatism and measles.

*Physical Examination.*—Mind is clear. Pupils react to light and during accommodation. Tongue is coated. Chest is well developed, breathing is deep, equal and regular. Lungs are negative. Heart is negative. Rose-spots are present. Liver dullness extends from sixth rib to costal arch. Spleen extends two centimeters below costal arch. Lymph nodes palpable in axillæ, cervical, inguinal and cubital regions.

October 22, 1896: Blood examined for malarial plasmodia; none were found. See chart for pulse, temperature and respiration.

*Two cases in which the diagnosis of typhoid fever is not clear and in which the simpler method of testing was positive, and in which Pfeiffer's method also gave positive results.*

CASE III.—M. P., male, white, aged 36 years. Admitted October 6, 1896, to Cook County Hospital. Owing to a marked psychosis, a reliable history is not obtainable. He says he has been sick for two months, unable to work for six weeks, and went to bed four weeks ago. Has had intense headache, anorexia, slight nausea, vomited once, no epistaxis, constipation, and several attacks of syncope. Had gonorrhea once.

*Physical Examination.*—There is a marked abnormal mental condition. Pupils react to light and during accommodation. Breath is fetid, saliva is increased. Tongue deep red on dorsum, coated at margins. Breathing is deep, equal, and regular. Lungs are negative. Heart

is negative. Abdomen is negative. Spleen is not palpable. Liver extends from sixth rib to costal arch in mammary line. Post-cervical lymph nodes are palpable, reflexes are normal. Temperature has been normal from admission up to present date, October 10, 1896. Pulse, 66 to 90 and regular. Respirations vary from 16 to 28 and are normal. Body is markedly emaciated.

*Previous Diseases.*—Had rheumatism once. Never has had typhoid fever (?).

CASE IV.—N. W., female, white, married, aged 33 years. Admitted to Cook County Hospital October 16, 1896, after having been sick for 18 days.

*Family History.*—Mother and all of brothers and sisters have died from tuberculosis.

*Personal History.*—Menstruation is regular, no dysmenorrhea. The flow lasts three days. Has had four children, two of whom are now dead. Last child, August 5, 1896. Has had two miscarriages.

*Present Illness.*—Has been sick for 18 days. Patient was confined to bed for two weeks in August, 1896, following her last delivery. After this she got up and felt perfectly well. One week later she noticed a purulent vaginal discharge of a foul odor. Eighteen days ago she had pain in the hypogastric region and has since been losing flesh and strength. Menstrual flow came on two weeks ago. Has had severe headache, dysuria and frequent micturition. Two weeks ago patient coughed up considerable dark blood, then bright red blood, also had hemorrhage from ears (?). Bowels were irregular.

*Examination.*—Slightly emaciated, anemic, pulse regular and of fair tension. Tongue dry and coated. Expression dull.

*Head.*—Eyes negative, ears and nose are negative.

*Chest.*—Symmetrical, respiratory excursion equal. No retraction at apices.

*Lungs.*—A few râles scattered throughout. Heart is negative. Abdomen is flabby, and not distended. No rose-spots are present. There is tenderness in hypogastric regions. Liver is negative. Spleen is not palpable. Extremities are slightly edematous. No scars present. Reflexes exaggerated. Urine, acid. Specific gravity, 1.020; no albumin. For temperature, pulse, and respira-

tion, see chart. Four days before entrance to ward 24 patient was examined by a competent physician who reported a palpable spleen, a few rose-spots, and a negative vaginal examination, except for a slight laceration of perineum and bilateral laceration of cervix.

*One case in which the diagnosis is doubtful and lies between typhoid fever and an acute exacerbation of a chronic endocarditis. All the tests mentioned were negative.*

CASE V.—J. K., male, white, aged 31 years. Admitted to the Cook County Hospital October 2, 1896.

*Previous History.*—At the age of two a number of physicians were called because he was weak and did not walk. They told his mother that he would probably live to the age of thirteen years. He has had "spells" with his heart at regular intervals, especially on over-exertion. During these "spells" he becomes blue. This cyanosis has been frequently noted by his friends who have been with him at the time. Drinks considerable beer, some whisky. Venereal trouble denied. Had malarial fever in 1879 and "remittent" fever in 1886. Patient was shown at the Rush clinic in 1879 on account of heart.

*Present Illness.*—Has not been feeling well for two weeks; has been confined to bed one week. Left leg was swollen. Has had fever, headache, anorexia, epistaxis, a slight chill lasting a few minutes, and herpes labialis.

*Physical Examination.*—Body is well nourished, color ruddy, expression apathetic, tongue is moist but coated, pulse is full and regular. Eyes are negative. Chest, symmetrical, supraclavicular fossæ are filled, respiratory excursion normal. Lungs are negative.

*Heart.*—The right border of heart dullness is at right of sternum, left border is at mammary line. Apex beat is strong and regular. A fremitus can be felt in precordium. Area of heart dullness the same in sitting posture. A loud blowing systolic murmur is heard at the base of heart most distinctly, but is transmitted in all directions, especially downwards.

*Abdomen.*—No distention. Slightly tender to pressure. No rose-spots present. Liver is negative. Spleen is palpable.

*Extremities.*—No edema. A few disappearing pus-

tules present. A few scars resembling those of syphilis present.

*Genitalia.*—No evidence of chancre. Inguinal glands are slightly enlarged.

October 4, 1896: A few moist and sibilant râles over right lung. Blood examined for malarial plasmodia. None were found.

October 5, 1896: Blood examined repeatedly for plasmodia. None were found.

October 17, 1896: Herpes labialis present. Complaints of tinnitus aurium, and constant headache.

October 19, 1896: Tongue is moist and clean. Eyes clear and bright. Mind clear. Spleen palpable. For pulse, temperature, and respiration, see chart.

#### DIFFERENTIAL DIAGNOSIS.

<i>Typhoid Fever.—Pro.</i>	<i>Contra.</i>
Temperature of continuous type.	Absence of rose-spot.
Duration of disease.	Presence of herpes labialis.
Enlarged spleen.	Drop of temperature to nearly normal on twelfth and fifteenth days of disease.
Slow pulse.	

*One case in which the diagnosis lies between typhoid fever and miliary tuberculosis, in which all of the tests mentioned were negative.*

CASE VI.—F. R., male, age 6 years, white. Admitted to Cook County Hospital September 25, 1896, after having been sick for five days.

*Family History.*—Mother and father are healthy. Two sisters are in the ward at present, one with typhoid fever, the other with tuberculosis.

*Previous Diseases.*—Pertussis.

*Present Illness.*—Has been sick for five days. Had epistaxis, vomiting, no diarrhea. Has anorexia, and insomnia.

*Examination.* — Apathetic. Pupils are negative. Tongue is heavily coated. Breathing is equal and regular. Lungs are negative. Abdomen is tympanitic. No special tenderness. No rose-spots present. Spleen is not palpable. Liver dullness extends from sixth rib to costal arch in mammary line.

October 2, 1896: Spleen is distinctly palpable.



Mind is clear. Tongue is heavily coated. Lungs are negative.

October 14, 1896: Complains of earache. Purulent discharge developed one day later.

October 27, 1896: There is a maculo-papular eruption irregularly distributed over body and extremities. Some papules are topped with a small vesicle, and a few pustules are present. Bowels are constipated. Disposition is markedly altered, being cross, although his disposition is naturally good. Involuntary urination. Body is emaciated. Mind is apathetic. Throat is slightly injected and tonsils slightly enlarged. Patient has a slight cough.

*A case of suspected typhoid giving the agglutination reaction, in which malarial organisms are subsequently found.*

CASE VII.—This case was sent into the hospital with a history and diagnosis of typhoid fever of three weeks' duration, according to the attending physician. The case was examined in the hospital by Dr. Jackson, who found the Pfeiffer-Widal reaction to be pronounced on two occasions, and to whom I am indebted for these data and for the subjoined temperature chart. Eighteen days after admission the patient had a chill, followed by an irregular temperature and subsequent chills. After repeated blood examinations, crescentic malarial plasmodia were found. No history of a previous attack of typhoid could be obtained.

#### SUMMARY OF RESULTS.

From the cases here presented it will be seen that the rapid and characteristic agglutination and sedimentation of living typhoid bacilli suspended either in the hanging drop or test tube, as described by Widal and by Pfeiffer, was obtained from the blood serum in 87 out of 89 cases which gave undoubted clinical evidences of typhoid fever. In only two out of these 89 cases did the reaction fail to appear at the end of five minutes in the hanging drop (Widal's test), and in both of these cases Pfeiffer's sedimentation test was positive. In three cases which had no clinical resemblance to typhoid fever, a marked reaction was obtained. However in only one of

these cases could the possibility of a previous attack of typhoid fever be definitely excluded.

Absolutely negative results were obtained in 59 cases, representing a considerable variety of pathological conditions in which the clinical evidences of typhoid fever were also negative. One case with many clinical features of typhoid fever in its early course gave a marked reaction though the subsequent history and blood examination proved it to be a malarial infection; and here no history of previous typhoid was obtained. The positive value of the reaction is strikingly shown in the case of lobar pneumonia complicating typhoid as confirmed by the autopsy. In the absence of post-mortem examinations, several of the cases here reported (especially J. R. and J. K.) must still be held as doubtful.

Upon the whole the results obtained in this study are very favorable to this new diagnostic procedure, and they tend to confirm the generally favorable reports which have thus far been made in the current literature.



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A NEW VOLUME (Vol. XII.) commenced with November, 1896. Subscriptions can begin at any time. Back numbers can be supplied.

ORIGINAL COMMUNICATIONS, reports of interesting cases, local news of general interest to medical men, are solicited from all readers. It is understood that original matter sent to the GAZETTE is not to be published as such elsewhere.

ALL MATTER INTENDED FOR PUBLICATION, all books and pamphlets should be addressed to the Editor, at 1150 Superior Street. All communications relating to business should be addressed to The Medical Gazette Publishing Co., 312 Prospect Street.

CHANGES IN ADVERTISEMENTS or addresses must reach us not later than the fifteenth day of the month preceding issue, to be corrected in the current number.

## Editorial.

### COMMENCEMENT EXERCISES OF THE MEDICAL COLLEGE OF WESTERN RESERVE UNI- VERSITY, HELD MAY 18, 1897.

This was the fifty-third "commencement day" of this institution. As usual, the exercises of the day began with the meeting of the alumni association, held in the upper amphitheater at 2:30 P. M. The address by the president, Dr. Auguste Rhu, of Marion, O., was chiefly an argument for thoroughness and accuracy in medical and surgical diagnosis. Remarks upon and in support of the address were made by a number of the gentlemen present. The subject of advanced requirements for admission to the college, as set forth in the

announcement for the next year, was discussed and, in the main, endorsed by those present.

Dr. A. M. Sherman, of Kent, O., was elected president of the association for the next year. After the formal meeting, the alumni, students and faculty assembled in the faculty room and lower hall for a social reunion and lunch, with an address by Hon. R. C. Parsons. This gathering lasted for two hours or more and this year took the place of the "banquet," which has commonly occurred after the evening exercises. Music and floral decorations, together with the freedom and informality of the occasion, brought forth many expressions of satisfaction with the plan, as compared with that of other years. In the evening, at eight o'clock, the exercises attending the "graduation" of thirty candidates were held in Association Hall. The faculty and students, for the first time in the history of the college, appeared in academic costume, in conformity with the other departments of the University. The address of the occasion was by Dr. Arthur T. Cabot, of Cambridge, Mass. His topic was "Science in Medicine," and comprised a concise review of what science had done and a forecast of what might be expected in the future, from science and scientific methods applied in medicine.

After a short valedictory address to the class, by Dr. H. H. Powell, Dean of the College, the diplomas were presented by President Thwing, and another school year brought to a close.

G. C. A.

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#### THE FIFTY-SECOND ANNUAL MEETING OF THE O. S. M. S.

The Ohio State Medical Society met in Cleveland on May 19, 20 and 21. The program of this meeting was published in the May number of *THE GAZETTE* and the papers and discussions in full will appear, as customary, in the annual transactions. The attendance was very large, and a more harmonious and enthusiastic meeting no one could recollect.

The "quiet doctor" was there and he sat on a rear seat in a dark corner and said nothing, but took it all in;

and of course the "loud doctor" was there and he sat on a front seat and bobbed up sixty times a minute, as everybody expected. Politics was not absolutely all left at home, as we had hoped, but what was there may have been a few small samples of the indigenous product circulating, and as everybody expected it no great harm was done.

The Grays' Armory proved to be a very convenient meeting place, being large enough for any crowd, and accessible. The exhibits were located on the main floor and the sessions held up-stairs. The sessions were well attended and nearly all the papers well discussed, the argument sometimes growing very lively. President Larimore took it all calmly and proved a good presiding officer. We must refrain, for lack of space, from giving abstracts of the papers. Among the matters of great interest and importance at this time is that of the anti-vivisection bill which came before the society in the report of the special committee on legislation. In his report as chairman of the committee, Dr. L. B. Tuckerman reviewed the action taken by the American Humane Society upon the question of vivisection at its session in Cleveland last winter. At that meeting the Humane Society adopted a resolution recommending the passage of the Gallinger anti-vivisection bill. In view of the action taken by that society, the legislative committee went to Washington and worked in harmony with the Washington medical societies against the bill. They managed to keep the Senate from taking a vote on the bill during the Fifty-fourth Congress, but the measure has been introduced in the present session, and the medical profession should renew and redouble its opposition to the bill, or it will pass.

Dr. Tuckerman pointed out that while the present bill has been modified in certain minor particulars, the main objections still remain. "While it professes to favor legitimate, scientific investigation, the new bill, like the old one, so hampers physiological study in the District of Columbia that rather than undertake it with the risk of running afoul of fine and imprisonment, unless we retain a first-class lawyer by the year, as English physiologists have to do in order to protect themselves

against persecution, the medical profession in Washington will be compelled to do as the law practically compels practitioners to do in England, viz: refrain from experiments on animals and test the relative merits of mooted procedures on the human sufferer first."

The report included a communication from the president of the Medical Society of New York, which said that the society had held annual meetings at Albany during the sessions of the State Legislature, and had in that way managed to have excellent medical education laws passed for the State, and suggested that a delegation from the medical societies of each State meet once each year for a brief period in Washington, while Congress is in session, for the purpose of influencing legislation which affects the medical profession. The communication recommended that the Ohio State Medical Society appoint a committee of three to meet in conference with delegations from other societies for the purpose of forming a permanent organization.

The report recommended the passage of the bill introduced in Congress as House bill 8,777 providing for the inspection of immigrants at points of embarkation, by officers of the United States Marine Hospital Service, and which has been referred to the committee on Interstate and Foreign Commerce. The report also recommended that the Senators and Representatives in Congress do all in their power to prevent the passage of the Gallinger bill. As a part of the report, the following resolutions were offered:

*Resolved*, That it is not conducive to public welfare nor to the normal progress of the healing art that legally qualified practitioners of medicine and surgery should be prohibited from making such experiments upon living animals as are in their judgment necessary to the proper treatment of their patients or to the improvement of methods in the treatment of diseases.

*Resolved*, That the general laws in force prohibiting wanton cruelty to animals are amply sufficient to suppress any abuses that may arise in the exercise of their liberty on the part of members of the medical profession.

The report, including the resolutions, was unanimously adopted.

The election of officers for the ensuing year resulted as follows: President, Dr. Wm. H. Humiston, Cleveland; First Vice-president, Dr. T. Clark Miller, Massillon;

Second Vice-president, Dr. Geo. Mitchell, Mansfield; Third Vice-president, Dr. G. S. Peck, Youngstown; Fourth Vice-president, Dr. E. H. Hyatt, Delaware; Secretary, Dr. J. A. Thompson, Cincinnati; Assistant Secretary, Dr. H. M. W. Moore, Columbus; Treasurer, Dr. James A. Duncan, Toledo. Finance Committee: Dr. J. E. Cook, Cleveland. Ethics Committee: Dr. Dan Millikin, Hamilton. Publication Committee: Dr. P. Max Foshay, Cleveland.

The annual banquet was also held at the Grays' Armory, and was a more than ordinary sumptuous affair. The tables arranged in a geometrical design upon the main floor of the armory were so beautifully decorated with flowers that the scene as viewed from the balconies was like a beautiful old-time garden all in bloom. The menu was excellent. As toast-master, Dr. Dan Millikin was in his element, and we wish we could reproduce here the happy responses from every gentleman called to his feet. It is enough to say that there was not a dry speech, nor a dry eye (nor a dry throat), during the whole evening.

The committee of arrangements, Drs. W. H. Humiston, J. F. Hobson, A. R. Baker, A. F. House, and J. E. Cook, deserve the highest praise for their management of affairs; and the local profession have no reason to be ashamed of their generous entertainment of the visitors. Even the weather was hospitable as could be expected in a backward spring. Lake Erie alone offered a rough reception and the proposed boat ride had to be abandoned and a carriage ride substituted. With the exception of this single disappointment, the whole series of sessions, lectures and entertainments as planned passed off as profitably and as pleasantly as one could desire. Next year we will all journey to the State Capital.

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#### THE THIRD ANNUAL MEETING OF THE OHIO STATE PEDIATRIC SOCIETY.

The meeting this year was very successful and profitable in the way of papers and discussions, while the social features were equally gratifying. The papers will appear

from time to time in THE GAZETTE, each paper being accompanied by the discussion it elicited. The first session was held at 5 P. M. at the Forest City House, and was opened with remarks by the president, Dr. Kelley, among which he said: "As a Clevelander I welcome those from without the city into our midst, and speaking for the society, I greet the physicians of Cleveland who are present, whether as members or as visitors, and give you welcome.

"You are all aware of the objects of the meeting. Not a man or woman here but is interested in the study of the diseases of children and the means of their cure. Your presence here for this purpose sufficiently vindicates the existence of this society—sufficiently refutes the opinions of those who a few years ago could see no use for the existence of a society devoted to pediatrics. I shall enter into no argument to prove the propriety, the utility, the necessity of special study of pediatrics, and of association for such study. You will all agree with me that it is one of the most useful as well as most interesting branches of study in which a physician may engage, that it has before now engaged the attention and is worthy the attention and the best efforts of some of the finest talent to be found in the profession.

"As to the present state and prospects of this society, I think it may truthfully be said that although only three years old, it is one of the most vigorous and promising youngsters in the country. It is well born, showing many marks of good blood, and seems to possess plenty of vitality and wonderful developmental possibilities. I would enjoy dilating upon the health and the ailments of this infant, or indeed of some other, but I remember afflicting you at considerable length last year and, having sufficiently tested your patience upon that occasion and found it above proof, I forbear to-day. I have felt it more imperatively my duty this year to seek to interest in this society other workers in diseases of children, men whose learning, experience and eloquence will entertain and instruct us during this meeting. I trust that work of this kind on the part of your president will be fully as acceptable to you as a formal address or essay, however laboriously prepared."



After a brief business session, the presentation of papers proceeded until 8:30 o'clock, when the meeting adjourned to the dining room and enjoyed a dinner of the kind which has made the Forest City House famous.

On the morning of the 19th, the society reassembled and completed the literary programme. The papers were excellent, some of them admirable, and elicited interesting discussion which grew quite spirited at times. The report of the treasurer, Dr. George M. Clouse, of Columbus, showed the finances of the society to be in a satisfactory condition, with money to pay all expenses.

The new members elected were: Dr. W. A. Knowlton, of Cleveland; Dr. J. B. McGee, of Cleveland; Dr. R. E. Skeel, of Cleveland; Dr. L. K. Baker, of Cleveland; Dr. Miriam G. Kerruish, of Cleveland; Dr. Frank S. Clark, of Cleveland; Dr. B. E. Sager, of Cleveland; Dr. W. J. Esch, of Cleveland; Dr. J. C. McMichael, of Glenville; Dr. W. F. Brokaw, of Cleveland; Dr. C. F. Dutton, of Cleveland; Dr. Hunter H. Powell, of Cleveland; Dr. G. B. Farnsworth, of Cleveland, and Dr. G. J. Martz, of German.

The election of officers resulted as follows: President, Dr. N. R. Coleman, of Columbus; first vice-president, Dr. Wm. A. Knowlton, of Cleveland; second vice-president, Dr. J. P. West, Bellaire; secretary, Dr. D. S. Hanson, of Cleveland; treasurer, Dr. T. V. Fitzpatrick, of Cincinnati; chairman of council, Dr. H. S. Straight, Cleveland. The place and time of the next meeting was left to the judgment of the officers-elect, and will be announced later.

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#### PROPOSED LEGISLATION RESTRICTING ANIMAL EXPERIMENTATION.

Senate bill 1063 is entitled, "A bill for the further prevention of cruelty to animals in the District of Columbia." It was framed by the anti-vivisection committee of the Washington Humane Society. While it purports to be only a local measure, it is freely asserted that its passage is desired as much for its influence as a precedent for State legislation as for its direct effect in the District.



Sacred to the  
**MEMORY**  
..of..  
**Medical Progress**  
attainable by

animal experimentation, killed in  
the United States in the year 1897,  
by the passage of Senate bill 1063,  
because the medical profession did  
not rise to defend it.

Erected by its sorrowing but inactive friends, the physicians  
of this country, who must now lament their liberties departed  
and their hopes of scientific advancement for the sake of suf-  
fering humanity frustrated.

Let every reader who does not wish to see such a gravestone, detach  
the last two pages of this folder, sign his name and MAIL IT TO-DAY to  
the U. S. Senator from his district.

## SENATE BILL 1063 SHOULD NOT BECOME A LAW,

because it is unnecessary, animals being sufficiently protected against cruelty by laws already in effect; because this bill if it become a law will absolutely prohibit important and necessary lines of experiment and greatly restrict others not prohibited. How important and necessary these lines of investigation are in medicine and surgery was well and briefly sketched by Prof. W. W. Keen in his recent address before the American Medical Association:

"Animal experimentation has had also a very large share in the development of modern surgery. The whole question of the introduction of animal ligatures was begun in America by Physick, who used buckskin, and his follower, Dorsey, who used kid and cut both ends short; Hartshorne, who used parchment, and Bellenger and Eve, the tendon of the deer, and has been solved principally by experiment upon animals in order to determine accurately the behavior of such ligatures in the tissues. Only professional readers can appreciate what a boon to humanity this single achievement has been. Modern cerebral surgery also owes its exactness and success almost wholly to cerebral localization and antisepsis, both of which were first studied by experiment upon animals and later by the application of the knowledge so gained to man. *Bacteriology would not now exist as a science, nor would accurate modern surgery and a large part of modern medicine be possible, had experiments upon animals been prohibited, as some zoöphilous women who love dogs better than men and women and even little children desire.*"

This bill was not drafted by persons in sympathy with scientific investigation or possessed of an adequate understanding of the relations of such investigations to modern medical science and all its splendid benefactions to the human race and to the lower animals as well. *The bill is altogether a misconception, born of error and morbid sentimentalism.*

The scientists of this country yield to no one superiority in humanitarian instincts and principles, and the question of animal experimentation may confidently and safely be left entirely in their hands.

..... June ....., 1897.

To the Hon. ....

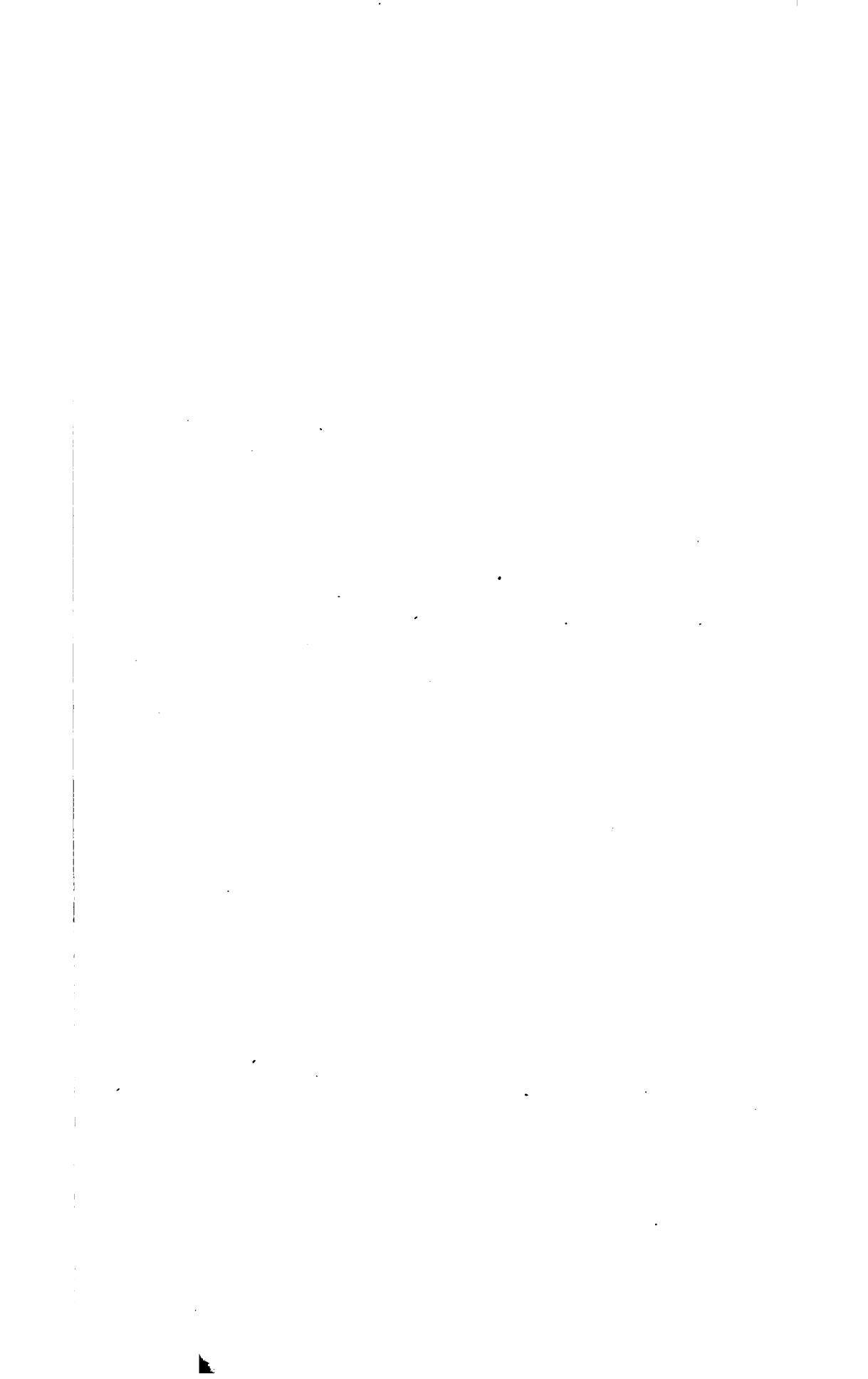
DEAR SENATOR:—I address you for the purpose of entering my earnest protest against Senate bill 1063, which was favorably reported to the Senate May 13, 1897, by the Committee on the District of Columbia. I trust that you will weigh the fact that scientific men individually and in organized bodies all over the country *after due consideration of the bill in all its bearings*, recognize that its enactment into a law would be a death blow to freedom of research and an insurmountable obstruction to the advancement of biology, medicine and the allied sciences, and emphatically protest against it. Among the organized bodies which have passed resolutions condemning the bill are the National Academy of Sciences, the American Association for the Advancement of Science, the Society for the Promotion of Agricultural Science, the American Medical Association, the Association of American Physicians, the American Academy of Medicine, the American Surgical Association, the Association of American Medical Colleges, the American Microscopical Society, the United States Veterinary Medical Association, the American Public Health Association, the American Society of Naturalists, the American Society of Morphologists, besides numerous State medical associations, State boards of health, State academies of natural sciences, and the faculties of educational institutions too numerous to mention here.

I hope, sir, that the Senators are aware that the eyes of the medical profession of this country will be upon them when they take up this bill; that this profession alone is over a hundred thousand strong, and that it wields an unmeasured influence in every home and every community in this land.

No Senator can wisely ignore the opinion or prudently disregard the wishes of the physicians of his district in a matter of this kind.

Respectfully yours,

.....



The bill establishes restrictions under which experiments must be performed, and if any experiment is made contrary to any of these restrictions the investigator is liable to a penalty of \$150, if a first offense, or if a second offense the penalty may be \$300 or imprisonment for six months. The bill pays no regard to the necessity of the experiments or whether there is any cruelty in performing them. The restrictions are such as would practically put a stop to vivisection and so hamper nearly all experimental work as to make it valueless.

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#### THE SEMI-CENTENNIAL OF THE AMERICAN MEDICAL ASSOCIATION.

The meeting at Philadelphia was such as had never before been seen in the history of the organization. About two thousand members were in attendance and they were as wideawake and as good-natured a crowd as ever assembled. They had two objects in view—one was business and the other was pleasure, and they secured both at once. The program for the general sessions was full, and the programs for the sections were so full that it was only by early opening, a sharp eye on the time-piece and a prompt use of the gavel that the various presiding officers were able to conduct their sections through the prescribed work in the allotted time. The opinion seemed to prevail among competent judges in the various branches that the work of the sections was of good quality when not too much hurried. The essays and discussions, if approved by the committee on publication, will in due course appear in the journal of the association, and we can attempt no recital of the long list here. We would like to say, in passing, that the judgment of the committee on publication should not be final. The editor of the journal should have the privilege of accepting or rejecting papers, even after they have been passed by the committee, and this without recourse to the trustees.

The annual addresses were attended by large audiences and listened to with rapt attention. In every instance, as was predicted, the address was a masterly effort, masterly not only in the matter but in the manner of it.

In fact, after Dr. Keen's address, on motion it was resolved that in future the term oration be used instead of address, and the appointed speakers be designated as orators.

Dr. A. L. Gihon was on hand on the morning of June 1st with his report on the Rush Monument Fund. After many years of earnest effort the committee had only a pitiful couple of thousand dollars collected, while of the original committee of nine only three remained alive. After considerable enthusiasm had been aroused it was thought that seventy-five or a hundred thousand dollars should be raised, and delegates from various States pledged for their States sums of two thousand dollars, Ohio being among this number, or promised a sum proportionate to the medical population of their State. In speaking of the Rush Monument Fund, we would like to suggest that there could be a better monument than one of marble, granite, or bronze. This holds true of many other monument funds, and there are plenty of arguments to prove it, the presentation of which must be left for another time. Briefly stated, the proposition is this: In the present state of medical science in this country and its relations to government and to capital, the establishment of a laboratory, of a library, a prize fund for original literary work or scientific investigation, would be a more appropriate and much more sensible and useful means of doing honor to the memory of the illustrious dead than the rearing of the finest example of the sculptor's art.

This suggestion is respectfully offered for the consideration of those who have the matter in charge. Perhaps they will see fit to offer a Rush memorial prize each year, or once in two or in three years, to the American physician who has within that time, by his own labors, done the most to bring renown upon American medicine.

During one of the general sessions, on June 2d, Dr. H. C. Wood appeared before the association and made a short but impassioned speech against the pending legislation restricting animal experimentation, and offered the following resolution, which was unanimously adopted:

WHEREAS, Senate bill 1063, formerly Senate bill 1552, has been reported favorably to the United States Senate; and

WHEREAS, we believe that its passage would seriously interfere with the progress of practical medicine, and therefore be a public calamity; therefore, be it

*Resolved*, that the American Medical Association, with a full knowledge of the contents of Senate bill 1063, most earnestly protest against its enactment.

The election of Dr. George M. Sternberg as president of the association was eminently proper and was warmly approved by the great mass of the members. Even the personal adherents of other candidates had nothing to offer in objection, while the sentiment of the body of the association was that, although others might be entirely worthy, there was plenty of time yet for the younger men.

There had been considerable work done by the Columbus men and to some extent by other Ohioans to bring the association to Columbus next year. There is no doubt that had the choice of meeting place been put to popular vote the association would next year have met somewhere in the Middle States, most likely in Columbus or in Cleveland. The selection of Denver goes to show how uncertain the result is when political methods are resorted to.

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## Periscope.

### THE INTRA-UTERINE APPLICATION OF CHLORID OF ZINC.

Sänger, in the *Monatsschrift für Geburtshülfe und Gynäkologie* for December, 1896, discusses the use of applications to the endometrium, with especial reference to the method of Dumontpallier, who had recommended the treatment of climacteric hemorrhages of the uterus with pencils of chlorid of zinc. Others had used injections of a solution of the same drug, but the results had been generally unfavorable. Sänger says that in 1891 he treated five cases according to Dumontpallier's method. In three of these he was obliged later to perform hysterectomy; in all three there was stricture of the cervix. In the other two cases hematometra occurred later, and in one there was atresia of the cervix. In consequence of these results of his own and of those of others, and despite the fact that Kochenburger from his 22 cases came to conclusions rather in favor of the use of the pencils, but against that of the solutions, Sänger would discard Dumontpallier's method absolutely for the following reasons: 1. One can never tell how extensive the action of the chlorid of zinc pencil will be; at times it acts only superficially, while at



other times the destruction of the tissue is very deep. 2. The accompanying cauterization of the cervix is followed later by stenosis or atresia, and often by a painful hematometra causing obstruction in the case of a future labor, or in purulent affections of the adnexa which are especially prone to happen in endometritis gonorrhoeica. These and other complications may later necessitate grave operative interference.

He thinks that in Hofmeier's fatal case, in which a 50 per cent. solution was injected with a Braun's syringe, death was undoubtedly due to the chlorid of zinc, but does not agree with Broese who was of the opinion that the immediate cause was intoxication. He argues that poisonous effects from chlorid of zinc are seen only after the use of weak solutions, and concludes that death was due rather to shock, since after applications of the drug he has often noted intense pain in the abdomen, pallor, faintness, and weakness of the pulse, symptoms which were almost at once relieved by the use of morphia, thus proving that they were the result of shock rather than of intoxication.

Sänger believes that chlorid of zinc is a valuable agent. Cauterization, he holds, should be performed only at rare intervals and with the smallest possible quantity of a strong fluid cauterizing agent. With Braun's syringe too great a quantity and too weak a solution must be used. Hofmeier's carbol-alcohol is to be placed among the weak cauterizants. Sänger prefers strong fluid caustics applied on cotton wrapped round an elastic silver probe, as affording a method which is quite simple and at the same time sure, while affording greater protection for the parts not diseased. The thick stiff Playfair sound he has found to be less advantageous. He distinguishes between applying the caustic to an intact diseased mucosa (corpus and cervix), and to a wounded mucosa, for example, after curetting. The first he does in his office, the latter only in the hospital.

In the first method he uses Neugebauer's speculum. The vagina is thoroughly dried, especially the fornices, no douche or sound having been employed. Dilators are not previously used, as they can easily cause small injuries to the mucosa and may irritate the isthmus uteri. The probe is pushed in free-handed, with no fixation of the portio with hooks or forceps, and thus offers in itself a means for determining the width of the cervix. If it does not pass the cervix easily, the probe is withdrawn and a smaller cotton wrapping is applied. At the first cauterization the probe is allowed to remain only a few seconds. In cauterizing the cervix (ectropion erosions, etc.) the point may be applied for a half to one minute.

After the cauterization is finished the vagina is thoroughly dried, and an iodoform-glycerine tampon or a pledget of iodoform gauze is inserted into it. Severe colics lasting for hours appear in only a few cases. There was no discharge, and no symptoms of shock followed. Slight attacks of colic and faintness are often noted, sometimes after a few minutes, sometimes not until after an hour. It is best to make the patient assume the recumbent position on the sofa for a little while after the application. When dismissed she should go immediately home and lie down for the rest of the day. Sanger has never met with a case of severe hemorrhage after this method of applying zinc chlorid, nor has any resulting stenosis been observed by him. In using a 50 per cent. solution in this way, the process should not be repeated before the twelfth or, better, the fourteenth or sixteenth day. In those cases which are near or at the climacteric, with exceptionally severe, long-continued and recurrent hemorrhages, Sanger employs the second method. The cervix is first dilated with tents, and curetting is then performed with Recamier's curette. The uterus is never tamponed with gauze. After three or four days it is douched by means of a Doleris' douche tube and then thoroughly dried. The anterior cervical lip being steadied with the bullet forceps, the probe wrapped with cotton saturated with the chlorid of zinc solution is inserted in the direction of the cornu of the uterus. Two probes are used, one being inserted in one direction (towards the cornu of the uterus) and then removed, the other being inserted after the removal of the first. They are allowed to remain a little longer than when the cauterization is done in the office. In spite of such an energetic cauterization, when only performed once, no appearances of shock and no stenosis followed in any of his cases. No single case had to be readmitted on account of a recurrence of the hemorrhages. In one instance menorrhagia occurred. In this case the endometrium had been found benignant by microscopic examination, and a chlorid of zinc application was made according to the first method.

Sanger, therefore, concludes that in these troublesome climacteric hemorrhages we have a method of securing a lasting result through a simple innocuous and yet energetic chlorid of zinc treatment. He is convinced that the intra-uterine cauterization by means of the soft pliable silver probe wrapped with cotton saturated with Rheimstadter's chlorid of zinc solution, or, according to the particular indication, with other fluid cauterizing agents (solutions of silver nitrate, tincture of iodine, ferripyrin, carbol-alcohol, iatrol, argonin and other drugs) will be of use to the profession, and in view of the facility and ab-

solite safety of the technique, something which cannot be said of the method with Braun's syringe, or indeed of curettement, this method must prove of the greatest service.  
H. R.

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### **Among Our Exchanges.**

If there be in popular therapeutics any expedient which may be solely classed as a "delusion and a snare," it is the *poultice* as commonly applied. If not too cold when it is put on, it gets too cold before it is replaced by another, and the cold often does as much harm as the heat does good. Where the rubber hot-water bag is not handy, DR. CYRENEUS W. SILLEN, of Suttgart, Ark., recommends a hot pad made in the following manner:<sup>1</sup> Take one or two thicknesses of cotton batting such as is used to put in an ordinary comfort, and cover both sides with newspaper or any other paper, then cover with flannel, and tack in places as a quilt is tacked, to hold the batting in place. These are heated in the oven, in a common baking-pan, carried in the pan to the bedside, and thus applied hot. They hold heat longer than an ordinary wet poultice and as long as a poultice covered with oiled silk; they do away with wet, soiled clothes, and, what is most important, the materials are almost always at hand to make one just when needed. The disagreeable tinnitus, vertigo and headache, which so many experience on the exhibition of even moderate doses of *quinin*, may, according to M. AUBERT,<sup>2</sup> be much mitigated by combining *atropin* with it in doses of 1-150 grain. He gives histories of three cases where he has used this method with benefit. They were cases of neuralgia, in which quinin in doses of from 5 to 7 grains was poorly tolerated. In one case the disagreeable symptoms were wholly prevented, and in the two others, greatly moderated. The periodical pains were allayed and that without any appreciable symptom of atropinism.

<sup>1</sup>*Med. Brief*, Feb. '97.    <sup>2</sup>*Lyon Médicale*, Jan. 3, '97.

**New Books.**

THE DISEASES OF THE STOMACH. By Dr. C. A. Ewald. Translated and edited, with numerous additions, from the third German edition, by Morris Manges, A. M., M. D. Second revised edition. New York: D. Appleton & Co., 1897. Received from T. D. Southworth, Cincinnati.

For some time past many who have given attention to the careful study of stomach diseases have awaited with much interest the appearance of the new American edition of Dr. Ewald's book, and their expectation is now gratified to a high degree. The translation and editing have been ably done by Dr. Manges, who did the same offices for the first American edition of the work. The book is not intended to encourage the "stomach specialist" as such, for, as Dr. Ewald says in his preface, it "has been designed for general practitioners and students; every part has been considered from this standpoint and represents an extensive practical experience."

As would be expected of a writer who has contributed so much to the pathology and diagnosis of diseases of the stomach, a considerable space is devoted to methods of examination, including a careful description of the practical chemical tests, preceded by a brief review of the apparatus and methods used to procure the stomach contents. These chapters also include the examination of the absorptive condition and motor function of the stomach and the physical methods of examination, and as well the technique of treatment in general. To the electric "gastrodiaphane" he accords a moderate value only. For inflation of the stomach, Dr. Ewald prefers the method of dilatation with air by means of the stomach tube and rubber bulb, although Dr. Manges advocates the usual American plan of giving tartaric acid and sodium bicarbonate, supplemented if necessary by pumping in air.

The bulk of the book is occupied with a consideration in detail of the various diseases and pathological conditions of the stomach. The organic diseases are first taken up, and then the reader is carried into that vale of mystery to the average practitioner, the neuroses of the stomach. The introduction to this topic is most entertainingly written by Dr. R. Ewald, a brother of the author, and professor of physiology at Strasburg, who discusses the various problems of the physiologic relations of stomach functions, and brings to their elucidation interpretations of various facts and analogies which would not readily occur to the physician absorbed in the practical aspect of the subject.

The last chapter is a correlation of the diseases of the stomach and other physiologic and pathologic activi-

ties, ending with remarks on the chemical tests, to which he accords due value, but insists that they must be used with all other diagnostic resources. Dr. Ewald's book is perhaps the leading work on the subject, and in it he meets, so far as may be now possible, the wants of the earnest general physician who asks for help and advice in this class of cases. And who is there in general practice but finds the influence of gastric derangement a most important element in a large part of his cases? F. K. S.

**DISEASES OF THE EAR, NOSE, AND THROAT AND THEIR ACCESSORY CAVITIES.**

A Condensed Text-Book. By Seth Scott Bishop, M. D., LL. D., Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Illinois Charitable Eye and Ear Infirmary; Consulting Surgeon to the Illinois Masonic Orphans' Home and to the Silver Cross Hospital of Joliet; Formerly Surgeon to the South-Side Free Dispensary and to the West-Side Free Dispensary; Member of the International Medical Congress, the Pan-American Medical Congress, the American Medical Association, the State Medical Societies of Illinois and Wisconsin, the Chicago Pathological Society, etc. Illustrated with 100 colored lithographs and 168 additional illustrations. One volume, royal octavo, pages xvi-496. Extra cloth, \$4, net; sheep or half Russia, \$5, net. The F. A. Davis Co., publishers. Philadelphia, New York, Chicago.

It is with great pleasure that this volume is commended to the profession at large as being a work worthy of most careful study, and it is believed that it should find a place in every medical library, whether public or private. The volume is neatly edited, correctly published and nicely bound. It contains an exceeding number of most valuable illustrations with many colored plates which clearly represent both the normal and pathological conditions of the parts involved.

The author has had a large experience and his work indicates a careful study of other writers and a judicious compilation of their views in connection with his own.

To the student this volume will open up a new field with distinctness and accuracy and will create a desire for study in these lines not heretofore experienced. The general practitioner will find in it a faithful guide for all practical purposes, and the specialist cannot fail to be thoroughly interested in its contents, as it is clear, concise and rich in valuable suggestions for all.

The ground covered is very broad, and therefore details and long arguments are necessarily omitted, which may prove to be an advantage to those having little time for study and who desire a book for concise and ready reference. The work in its nature is intermediate between a compendium and the more voluminous writings on such subjects intended for the specialist. C. W. S.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A WORK OF REFERENCE FOR MEDICAL PRACTITIONERS. 1897. Fifteenth year. New York. E. B. Treat, Price, \$2.75.

To give the list of contributors to this book displays at once its cosmopolitan character and assures the reader of the quality of the work. Not a name upon the list but is well known to the student of medical literature, in connection with the particular branch of medical science which he represents in the Annual. Herbert W. Allingham, F. R. C. S.; H. H. Fielden Briggs, D. D. S., L. D. S.; Prof. Augustus Caille, M. D.; James Cantile, M. A., F. R. C. S.; Prof. H. D. Chapin, M. A., M. D.; J. W. England, L. D., F. R. C. S.; E. Harry Fenwick, F. R. C. S.; W. Soltan Fenwick, M. D., F. R. C. P.; Prof. Wm. S. Gottheil, M. D.; J. Dundas Grant, M. A., M. D.; Alex. Haig, M. A., M. D.; F. De Haviland Hall, M. D., F. R. C. P.; Prof. G. M. Hammond, A. M., M. D.; G. Armauer Hansen, M. D.; David Hardie, M. D.; Frank W. Jackson, M. D.; Robert Jones, F. R. C. S.; Otto G. T. Kiliani, M. D.; W. Arbuthnot Lane, F. R. C. S.; Priestly Leech, M. D., F. R. C. S.; Thomas More Madden, M. D.; Geo. Lane Mullins, M. A., M. D.; Wm. Murrell, M. D., F. R. C. P.; Prof. Theophilus Parvin, M. D.; Jos. Priestly, B. A., M. D., D. P. H.; John Ridlon, M. A., M. D.; Prof. A. W. Mayo Robson, F. R. C. S.; Prof. Robt. Saundby, M. D., F. R. C. P.; Prof. Geo. E. De Schweinitz, M. D.; Hy. Sewill, M. R. C. S., L. D. S.; James Shaw, M. D.; R. Shingleton Smith, M. D.; B. Sc.; G. E. Shuttleworth, B. A., M. D.; Prof. E. Sonnenburg, M. D.; J. W. Springthorpe, M. A., M. D.; Wm. Thornburn, F. R. C. S.; B. Sc.; Prof. Unna, M. D.; Clarence A. Veasey, A. M., M. D.; Norman Walker, M. D.; F. R. C. P.; Ed. P. Watson Williams, M. D., M. R. C. S.; Irving S. Haynes, Ph. B., M. D.

The International Medical Annual needs no extended notice. It has been highly esteemed and well patronized by the profession for the past fifteen years. The ground is well covered, the material well boiled down. The publishers have been liberal with cuts and colored plates. There are two wonderful things about the Annual; first, that it can all be put in 724 pages, and second, that it can be furnished at so low a price.

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SYRINGOMYELIA. An essay to which was awarded the Alvarenga Prize of the College of Physicians of Philadelphia for the year 1895. By Guy Hinsdale, A. M., M. D., Fellow of the College of Physicians of Philadelphia and of the American Academy of Medicine; member of the American Neurological Association and of the Philadelphia Neurological Society; member of the American Climatological Association; honorary member of the Pueblo County Medical Society of

Colorado; assistant physician to the Orthopedic Hospital and Infirmary for Nervous Diseases; attending physician to the Presbyterian Orphanage and to the Out-patient Department of the Presbyterian Hospital in Philadelphia, etc. Philadelphia: P. Blakiston, Son & Co.

It is with some interest that one turns to anything new on Syringomyelia. Little did Ollivier suppose, when he applied this term to what he then regarded as a developmental curiosity of the spinal cord, that clinicians would follow who would fit to this condition a syndrome which had escaped him and so discover and establish a new disease.

Dr. Hinsdale's monograph is a compendium of our knowledge of syringomyelia and a monument to his industry, having a bibliography of five hundred and fourteen references and an analysis of one hundred and eighteen cases. When the essay was originally published in the *International Magazine*, a synopsis of these cases was given, and the reviewer believes that their omission from the present modest volume is to be regretted.

No one can examine the monograph and fail to admire the painstaking search needed to gather together such a mass of opinions, observations and facts. Dr. Hinsdale's ideas of symmetry and proportion are admirable. His paragraphs are finished, clear, and readable. His style recognizes the principle that for strength we must

" Let order reign throughout—each topic touch,  
Nor urge its power too little nor too much."

He lays no claims to original observation, nor can we discover anything strikingly new in the essay. This is certainly not to his discredit, for medical literature of late has so teemed with extracts, memoranda, and case reports of this rare, old, but newly-discovered disease, that the reader has not been allowed to lose interest or lapse into forgetfulness of its many and curious phases.

How hard it is to be original in these days! A thousand pens are ever wet with ink to record the observations of two thousand prying eyes. And then the strikingly original fellow is dangerous and needs watching, for fear that his imagination may be too vivid and his contagious enthusiasm so virulent that we shall become inoculated with his errors.

C. J. A.

#### PAMPHLETS RECEIVED.

RESULTS OF (CHEMICAL) ELECTROLYSIS VERSUS DIVULSION OR CUTTING IN THE TREATMENT OF URETHRAL STRICTURES. By Robert Newman, M. D., New York. From *Medical Record*.

CONTRIBUTION TO TRAUMATIC ABDOMINAL SURGERY. I. Report of a

case of contusion and subsequent gangrene of a portion of the ileum, complicated by laceration of a horseshoe kidney. 'II. Report of a case of gangrenous strangulation hernia. By Thomas Manly, M. D., New York. From *Annals of Surgery*.

ON THE TREATMENT OF FRACTURED SHAFTS OF BONE IN CHILDREN; SIMPLE, COMPLICATED, AND COMPOUND. By Thomas H. Manly, M. D. From *Journal American Medical Association*.

THE BACILLUS PROTEUS ZENKERI IN AN OVARIAN ABSCESS. By Hunter Robb, M. D., and Albert A. Ghrishy, M. D. From *The Cleveland Medical Gazette*.

THE IMPORTANCE OF A SYSTEMATIC MICROSCOPICAL EXAMINATION OF UTERINE SCRAPINGS AND THE EXCISED PIECES AS AN AID TO DIAGNOSIS. By Hunter Robb, M. D., Cleveland. From *American Journal Medical Sciences*.

CASE OF PAPILLOMA OF THE OVARY. By Hunter Robb, M. D. From *The Cleveland Medical Gazette*.

ASEPSIS AND ANTISEPSIS IN OBSTETRICS. Abstracted by Hunter Robb, M. D. From *The Cleveland Medical Gazette*.

NOTES OF LARYNGITIS. By Howard S. Straight, A. M., M. D., Cleveland. From *Cleveland Journal of Medicine*.

UNRESOLVED AMYGDALITIS. By Howard S. Straight, A. M., M. D. From *New York Medical Journal*.

FAMINE EXPERIENCES IN INDIA. By Pandita Ramabai, Sharada Sadan, Poona, India.

THE RELATION OF THE MEDICAL PROFESSION TO SCHOOL EDUCATION. By Walter Channing, M. D. From *Annals of Gynecology and Pediatrics*.

THE SIGNIFICANCE OF PALATAL DEFORMITIES IN IDIOTS. By Walter Channing, M. D. From *Journal Mental Science*.

HOW TO OBTAIN THE VITAL STATISTICS OF A STATE. By Henry B. Baker, M. D., Secretary. From *Annual Report Michigan State Board of Health for 1896*.

SUGGESTIONS ON PUBLIC HEALTH WORK IN MICHIGAN. Presidential Address to the Michigan State Board of Health. By Hon. Frank Wells.

THE STATE BOARD OF HEALTH. A Finger on the Public Pulse, of Two and a Quarter Millions of People. By Henry B. Baker, M. D. From *Annual Report of Michigan State Board of Health, 1896*.

THE ETIOLOGY AND PATHOLOGY OF TYPHOID FEVER. By Henry B. Baker, M. D., Lansing, Mich. From *Annual Report Michigan State Board of Health, 1896*.

DESCRIPTION OF A SUCCESSFUL OPERATION FOR BLEPHAROPLASTY, embracing the outer halves of both the upper and lower lids by a single split flap taken from the forehead, for epithelioma. By Charles A. Oliver, A. M., M. D. From *University Medical Magazine*.

A BRIEF STUDY OF THE OPHTHALMIC CONDITIONS IN A CASE OF CEREBELLAR TUMOR. AUTOPSY. By Charles A. Oliver, A. M., M. D.

CANCER OF THE RECTUM. By James P. Tuttle, M. D. From *Journal American Medical Association*.



STROPHANTHUS: A CLINICAL STUDY. By Reynold W. Wilcox, M. D., LL. D. From *American Journal Medical Sciences*.

PRIMARY SARCOMA OF THE LACHRYMAL CARUNCLE, with the Report of an additional case, with two plates. By C. A. Veasey, M. D. From *Archives of Ophthalmology*.

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## Society Reports.

### CLEVELAND MEDICAL SOCIETY.

*Regular Meeting, May 14th, 1897.*

A patient was presented to the society by Dr. Hoover, illustrating aneurism of the aorta located over or near the arch. The same patient appeared before the society one year ago when the signs were much less fully developed. The doctor remarked that after erosion of the ribs takes place less pain is experienced by the patient, as a rule. Dr. Hoover stated that he had watched one patient more or less constantly for seven years, where the signs of aneurism were well marked. The patient before the society was considerably depleted and unfit for any active service.

DR. W. H. HUMISTON, chairman of the committee of arrangements for the meeting of the State Medical Society, described the plans for the coming meeting and the methods proposed for entertaining medical guests and their families in Cleveland.

DR. C. F. DUTTON read a paper, "Fragmentary Observations on Fevers." The subject was treated in a very practical manner, made interesting by the doctor's wonted concise and forcible expressions. He said that little has been added to the subject of medicine during the past few years except in the way of bacteriology. There are probably no new diseases or conditions, although we have applied new names to them. Tradition and fashion have too much to do with our treatment and ideas of disease, and too little individual thinking is done on medical subjects at the present time, our own ideas being obscured and blinded by the numerous fads and fashions of the times. One should make every new patient the subject for special study and consideration to determine whether the local symptoms are primary or secondary. Nervous symptoms are often attendant on fevers and must be accorded proper weight or be eliminated from the case as required by facts. Mention was made of hysterical bladder trouble, etc., and a case of hysterical fever and ague was cited. Local inflammatory symptoms are often present in fevers and require special

attention as well as the constitutional symptoms. The policy of keeping all fever patients on a milk diet was questioned, as the doctor believed the diet might often be more varied with advantage. He does not think that patients are necessarily kept in a recumbent position, and believes more freedom of movement may often be given with safety. "Some doctors think the patient must be loaded with blankets," while the patient is far more comfortable and fever less high if less clothing is applied. Much can be gained by close attention to minor details in the sick room, and we may often be able thereby to lessen the rate of mortality.

DR. O. B. CAMPBELL remarked that we are all more or less hysterical when we are sick, and would raise objections to the practice of telling the patient too much about his condition; does not approve of telling the temperature, pulse or other symptoms, as the patient is often made worse by a knowledge of such facts.

DR. KNOWLTON spoke of the advantages to be derived from the new blood tests for typhoid fever, and thinks that pneumonia and gastric fever, so called, may often be true typhoid with no special abdominal symptoms, and has confidence to believe that such cases will be cleared up in the future.

DR. W. A. WARD, of Conneaut, O., charged the society to beware of fashions and modern fanciful theories and spoke in the highest terms of some of our ancient authors and earlier writers.

DR. DUTTON, in closing, remarked that ice applied to the head is often dangerous in cases of typhoid, and he wished to corroborate the words of the last speaker and those of Dr. Knowlton in reference to some of the older authors. They had no microscopes, but were scholastic and men of thought.

DR. H. J. HERRICK read the next paper on the programme, "The Beginning of Disease—a Complex Problem." He stated that Professor S., aged 46, had visited him in March of 1897, and as he was a learned man had presented his own case with much care. He had been under medical care for three or four years. His weight was 215 pounds; he had pain in passing water and had passed calculi; the odor was foul, color white, sediment one inch thick, of oxalate of lime, uric acid and the phosphates; quantity 16 to 84 ounces. Learning this, the doctor was forcibly impressed to recommend one of our numerous specialists in genito-urinary diseases. But further on he was informed that the man had a cough, a nasal trouble with expectoration, pain over the chest and symptoms of dyspnea, and the nasal specialist was called to mind. Vertigo and fullness in the head were com-

plained of; he had suffered from an attack of neurasthenia with failure of mental powers, forebodings and restlessness; and a feeling of obligation to send the patient at once to the nearest neurologist was experienced. He had visited an oculist and had been fitted with glasses; had taken injections to relieve constipation, as he had an abhorrence to cathartics; had eaten generously and his feet were bathed in a cold perspiration; had slight stricture of the rectum and marked fullness of the abdominal cavity; had occasional palpitation of the heart and some symptoms of obstruction to the circulation of the blood, etc. The case was quoted as illustrating the necessity for all-around treatment by the general practitioner, as the evident cause of all the symptoms complained of was traceable to perverted nutrition. Upon the treatment depends the prognosis of disease. "Are diseases entities? I cannot think that they can be spoken of as such. Is typhoid an entity? No! Disease is an abstract term, 'opposed to health.' " If any organ or group of organs fails to perform its functions, then there is disease; normal nutrition constitutes health. "I know of no better term. Disease is a disturbance of normal nutrition; health is perfect nutrition. This you say is a truism, but all science is based on truisms. Cell imbibition, nutrition, secretion and excretion are processes which, when complete, will maintain health.

Owing to the lateness of the hour, discussion of this paper was postponed till the next meeting.

DR. G. W. CRILE reported an interesting case, "Obliteration of the Stomach due to Carcinoma. Duodenostomy under Eucaïn." Two drams of a two per cent. solution of eucaïn being used as an anesthetic. The patient suffered but little pain from the operation. Eucaïn is one of the numerous coal tar products. Its action is slower than that of cocain, and it has been claimed that it is less poisonous and unattended with danger. The doctor stated, however, that if eucaïn is given in too large doses convulsions sometimes occur, with symptoms of paralysis. The heart's action is slowed and a local hyperemia is noticed. Eucaïn is not poisonous in so small doses as is cocain. The doctor now uses one to two per cent. solutions of eucaïn in many cases. Where cocain will act in two minutes, eucaïn will require ten or twelve minutes.

## AMERICAN PEDIATRIC SOCIETY.

*Ninth Annual Meeting, Washington, May 4th, 5th  
and 6th, 1897.*

The meeting was opened by the president, DR. SAMUEL S. ADAMS, of Washington, who delivered an address entitled "The Evolution of Pediatric Literature in the United States." In this address he reviewed in chronological order the various works on the diseases of children which have been written in this country during the past one hundred years. Every author writing upon this subject before 1870 was mentioned. Since that date the contributions have been too numerous to receive individual mention. The first definite contribution to pediatric literature was made by Dr. Rush in 1789, in a description of influenza. Following this were mentioned the names of Caldwell in 1796, Steuart in 1806, the American Matron in 1810, Jackson in 1812, Miller in 1814 and Logan in 1825. There were numerous contributions between that date and 1848 when J. Forsyth Meigs published his important work on the Diseases of Children, the last two editions of which appeared under the authorship of Meigs and Pepper. The next important name in pediatrics appeared ten years later, when Jacobi in 1858 wrote his first paper on children. It is also notable that J. Lewis Smith wrote his first paper on children in the same year. The first edition of his well-known work appeared in 1869. The most prominent names which have since appeared as the authors of systematic works are those of Keating in 1889, Starr in 1894, Sachs in 1895, Rotch in 1895 and Holt in 1896.

DR. JAMES C. WILSON read a paper upon "Tic Convulsif" and reported a case which belonged to the class of nervous diseases which includes the "jumpers" described by Beard. DR. B. SCHARLAU presented a synopsis of fifty-six cases of empyema operated upon during 1896 with very favorable results. DR. W. D. BOOKER reported a case of congenital diaphragmatic hernia associated with recurrent attacks simulating asthma dyspepticum. During one of these attacks the child died and the true pathological conditions were revealed by the autopsy.

DR. J. P. CROZER GRIFFITH reported two cases of unilateral tremor in children. DR. J. HENRY FRUITNIGHT read a paper on "A Frequent Significance of Epistaxis in Children." He believed that this symptom was frequently the result of cardiac disease and should always receive full attention. DR. GEORGE N. ACKER reported two cases of meningitis apparently tuberculous in nature, with recovery.

DR. JOSEPH O'DWYER reported a case of congenital stenosis of the larynx in which relief was obtained by gradual dilatation with steel sounds. DR. WILLIAM OSLER read an extended paper on "Adherent Pericardium in Children," and reported cases. DR. A. JACOBI reported a case of sarcoma of the skin in a newly born infant and read a paper upon the origin of such growths.

DR. F. GORDON MORRILL reported an analysis of one hundred cases of frank pneumonia, that term being used rather than lobar pneumonia because of the confusion produced by the use of the latter term when applied to the pneumonias of children. DR. FLOYD M. CRANDALL read a paper on "Hereditary Tendency in Pediatric Practice," and called particular attention to certain misapprehensions which sometimes arise regarding that subject. DR. B. K. RACHFORD read a paper on the "Symptoms of Lithemia" as they appear in children and considered the special symptoms in detail.

In a paper on "Retro-Esophageal Abscess," DR. J. P. CROZER GRIFFITH called particular attention to the great difficulties experienced in making a diagnosis of that condition. DR. C. G. KERLEY reported a case of exophthalmic goitre apparently cured by the use of thyroid extract. The case was an undoubted one and the beneficial effects of the extract seemed to be equally clear. DR. HENRY KOPLIK reported the extensive use of thyroid extract for the purpose of testing its value in different diseases of the blood and bones, and his conclusions suggested its more general use in those diseases. DR. FRANCIS HUBER also presented a paper reporting a cure of goitre by thyroid extract. The report of the committee on the collective investigation of the antitoxin treatment of laryngeal diphtheria in private practice was read by the chairman, DR. W. P. NORTHRUP.

DR. JOSEPH O'DWYER read a valuable paper on retained intubation tubes. This term was used to mean the necessity of continuing intubation long after the disappearance of the original disease. DR. T. M. ROTCH reported cases of diphtheria of the eye and discussed the subject of antitoxin in diphtheria. DR. HENRY KOPLIK exhibited an apparatus by which the bacteriologic diagnosis of diphtheria could be made within three or four hours.

DR. EDWARD P. DAVIS presented an important contribution on prenatal infection causing diseases which develop during the first month of life. DR. IRVING M. SNOW reported a case in which poisoning by acetanilid had resulted from the absorption of that drug in the umbilical wound.

The following officers were elected for the ensuing

year: President, Dr. L. Emmett Holt; first vice-president, Dr. Henry Koplik; second vice-president, Dr. Charles G. Jennings; secretary, Dr. Samuel S. Adams; recorder, Dr. Floyd M. Crandall; treasurer, Dr. F. A. Packard; member of council, Dr. Charles P. Putnam. The following were elected members: Dr. J. H. McCollom, Boston; Dr. J. P. West, Bellaire, O.; Dr. Churchill, Chicago; Dr. E. E. Graham, Philadelphia; Dr. Harold Williams, Boston.

The subject of infantile scorbutus was selected for collective investigation, the report to be made at the next meeting. The following committee was appointed: T. D. Booker, J. P. Crozer Griffith, C. G. Jennings, A. Caillé, J. Lovett Morse. Cincinnati was named as the next place of meeting, the exact date of the meeting not being decided.

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## Correspondence.

MEMPHIS, TENN., May 14th, 1897.

*Editor Cleveland Medical Gazette :*

MY DEAR DOCTOR:—In the April number of your excellent journal I note with some interest a synopsis of a lecture delivered by Dr. Wm. S. Thayer, of Baltimore, upon which I beg to comment briefly.

Without having made investigations under the microscope to which the doctor refers as having been made by himself, I believe the illustrations which I will give may be deemed ample to decide the question of a favorite medium for the propagation of the malarial organism, whether that be vegetable or animal. I believe, as I shall endeavor to prove, that this organism is conveyed by the atmosphere and by water, though in the strictest sense it is an aërobe; that is, if you please, this organism cannot exist in an atmosphere deprived of its chief medium, moisture. At any rate, that water is its chief medium of propagation and dissemination must be true, and the doctor lays too much blame upon his innocent scapegoat, the mosquito.

I would beg to assure him that if he would visit the Rockies and have shipped to him there at frequent intervals during this summer fresh (?) water from Green Tom of Arkansas, or Bogue Phalia of Mississippi, and take of it a slice *multi diem*, that though he be on the mountain top where this festive animal has never before made acquaintance, by October 1st in this same year, if not earlier, the "animal" and the doctor will have become better acquainted. Note this illustration, please, of my suggestion.

Prior to 1880, when open and shallow wells were exclusively used in Eastern Arkansas, few of the citizens escaped illness in the summer and autumn months. During and since that time, however, the citizens have substituted pumps driven down into the ground sixteen to sixty feet, from which they afterwards derived their water supply. Now prior to their substitution for open wells, I have known the virulence of malaria so great in some instances as to take off three or four of a family in less than one week. Prior to the date given, Memphis used the water pumped from Wolf River, and the doctors spent many wakeful hours of labor and much anxiety that have been dispelled like magic by the supersedence of artesian water by her citizens. No, dear doctor, unless this festive microbe had for its favorite habitat our water supply, this wonderful revolution of circumstances would not be so marked, I think.

I will claim that, were it convenient for me to go to any jungle of Eastern Arkansas, or Western Mississippi, where malaria would, and does, naturally exist, have a close dry house, high up off the ground, to live in, and before the sun went down shut it tightly, and derive my air supply from several feet above my two-story house (which is easily accomplished by use of the apparatus devised by Dr. L. L. Battle; Transactions of the Tri-State Medical Association of Mississippi, Tennessee and Arkansas of 1895), never leaving my room until the sun was two hours high, and derive my water supply from an artesian well, that I would little fear the ravages of malaria.

I have seen many cases of fever unmistakably the result of malaria, in which quinin had no beneficial effects; and to this statement abundant testimony may be obtained from physicians of this district. Apropos, I too think that the term "typho-malarial" hides a vast amount of ignorance.

JNO. L. JELKS.

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### **Notes and Comments.**

**The Gazette's Cartoons** which appeared in the two last numbers have excited considerable comment by those who have observed them. Some readers failed to see them on first inspection of the number. They easily found the portraits but overlooked the cartoons. More will appear in future issues.

**Dr. D. S. Hanson** has been appointed obstetrician to the City Hospital.

**In the Editor's Review** of Dr. Lydston's book in the

May number, in quoting from memory, the title of one of the tales was made to read "A Slave to His Passions." It should read, "A Martyr to His Passions."

**Honorary Membership.** At the recent meeting of the Ohio State Pharmaceutical Association, on June 8th to 11th, Dr. John G. Spenser, of this city, was elected an honorary member. This makes the second honorary member elected from this State in the whole history of the association, the first being Virgil P. Coblentz, now professor of chemistry in the New York College of Pharmacy.

"**The Doctor's Window**" is the title of a book about to be published, consisting of "Poems by the Doctor, for the Doctor, and about the Doctor," edited by Ina Russelle Warren. The collection is to contain nearly every poem of importance on the subject in the English language. There will be Armstrong's "Art of Preserving Health," Garth's "Dispensary," Henley's "In the Hospital," Dr. Holmes's "The Morning Visit" and "Rip Van Winkle, M. D.," Whitcomb Riley's "Doc Sifers," Will Carleton's "The Country Doctor" and "The Doctor's Story," Eugene Field's "Doctor Rabelais" and "My Pneumogastric Nerve," Peck's "Bessie Brown, M. D.," Whittier's "To a Young Physician," Charles Dickens's "The Quack Doctor's Proclamation," S. Weir Mitchell's "Minerva Medica," and more than seventy-five other standard poems, some of them never before published. Such a delightful collection will be a rare treat, in fact an unprecedented feast, and will no doubt be generously received by the profession. The publisher, Mr. Charles Wells Moulton, of Buffalo, N. Y., promises to issue it in the finest style of book making and at a price which will cause every doctor who hears of it to buy it—at the price of a professional visit or two. He will send a prospectus to any one sending his address.

**Cleveland as Viewed from Baltimore.** The March number of that excellent weekly the *Maryland Medical Journal* has the following: "Cleveland, O., has long been famous for its wealth and its beautiful avenues. As a medical center it is evidently on the boom. The abundance and severity of its cases of enteric fever have rendered it possible for one of its physicians, Dr. Ch. Sihler, to present us with perhaps the best treatise on the Brand method and its home application published in English, the text book directions of the other writers deviating greatly from Brand's teachings and being founded on hospital work. Now the CLEVELAND MEDICAL GAZETTE presents itself monthly in impressive garb and with Dr. Hunter Robb's name among its collaborators. There is good



meat too in its pages. The contribution of the editor, Dr. Samuel W. Kelley, to the September issue is an elaborate review of the status of pediatrics in America and Great Britain. Desiring, like some other pediatricists, to know 'where he was at anyhow,' Dr. Kelley sent letters of inquiry to teachers of this branch in the schools on this and the other side of the water. Answers showed great diversity of opinion as to the possibility of strictly medical pediatrics becoming a specialty. There is evidently a keen appreciation in America of the need of special study and instruction in children's ailments and peculiarities, also of the fact that a wide experience in general practice is the only proper basis for the specialty of pediatrics, which will soon become a familiar feature in our great cities. It will still remain, however, a great department of inner medicine [and of surgery as well.—Ed.], although on an equal footing with 'adult' medicine. It is evident that neglect of pediatrics in the schools is a mark of fossilizing tendencies."

**"The Base-Ball Arm"** is one of the developments of the modern game, with its extremely swift delivery in pitching and the several varieties of special movements necessary to produce the different curves. When the amount of pitching required for practice, in addition to that in the actual games, is considered, it may be realized how great is the strain on the pitcher's arm, especially when it is known that the velocity of the ball as delivered by professional pitchers reaches 100 feet a second, while in cricket the quickest bowling gives a velocity of about 80 feet. In *Harper's Weekly* for March 20th, a "Mechanical Pitcher" is described, which is designed for use especially in batting practice. The ball is fired from a cannon, by the explosion of gunpowder, the firing chamber being at some distance from the ball, and the expanding gases conducted to the rear of the barrel by a length of tubing. The motion of extremely rapid rotation is imparted to the ball by two mechanical fingers projecting forward from the muzzle at points separated by about one-third the periphery, the position of these fingers and the consequent direction of rotation determining the kind of curve produced. The object of the invention is to relieve the pitcher from the extra strain of practice, and allow all his energy to be used in actual games. The effect may, however, turn out to be the opposite, by training batters to higher efficiency and making still greater strain necessary on the part of the pitcher.

**The Northern Ohio District Medical Society** will hold its annual meeting, at Sandusky, July 22d, 1897.



### Original Articles.

#### THE SURGERY OF MALIGNANT DISEASE OF THE ORBIT.\*

DR. ROBERT SATTLER, CINCINNATI.

With isolated exceptions, only depressing experiences and disappointments have resulted from the most thorough surgery resorted to, early and promptly, for the relief of malignant disease of the orbit.

In fact, we must admit that even when practised during the incipient or latent stages of malignant neoplasms, the most unerring thoroughness in method and operative technique resolves itself into a measure of expediency, affording at best only inadequate relief or freedom from suffering. The radical removal of a new growth of malignant tendency affords no assurance whatever of its effectual disappearance. On the contrary, when once its location, extent and morphological nature have been more definitely disclosed, it rather suggests its inevitable return. In the most favorable cases the reappearance of the neoplasm is retarded, in others—unfortunately the larger number—its recurrence follows promptly and its subsequent course is often an incredibly rapid one.

If this holds good for malignant disease in general it applies with especial emphasis to that which attacks the skull, and in particular to one of its principal openings—the orbit. This cavity is a veritable stronghold for malignant disease, and when once invaded by a growth which,

\* Read before Ohio State Medical Society, May 20th, 1897.

clinically and morphologically, must be classed with this ill-fated category, it may as well be considered beyond the scope of successful surgical interference.

It must be conceded that in this locality surgery is not even attended by the same chances for success as in other regions of the skull in which, by common consent, it is considered uniformly unfavorable. It is not surprising therefore that a surgeon views these sad cases with dread concern.

This applies, with possibly one exception, to all forms of malignant disease met with in the orbit, either as a primary, secondary, or consecutive manifestation. The reasons for this are obvious. In the orbit so many recesses and direct communications with the cranial cavity exist, and the lymphatic, venous and arterial channels are so numerous and intricate, that neoplasms starting in adjacent regions or cavities can encroach upon its territory. Or a primary intra-orbital neoplasm spreads its destructive work by direct extensions along the optic nerve or the principal venous or arterial channels to the brain, or by the same channels or the lymphatics, through metastasis, to other remote parts of the body.

The framework of the orbit is composed of bones which enter into the formation of other important cavities and openings, and for this reason growths of the upper jaw, frontal bone, maxillary, frontal, ethmoidal, and even sphenoidal sinuses are not infrequently met with, attended by conspicuous consecutive manifestations in the orbit.

The most dreaded primary malignant new growths are those which begin as sub-periosteal ones, either in the roof or floor of the cavity, from the frontal or superior maxillary bones and from the deep connective tissue of the muscles and other structures in the apex. Both bear to the practical observer, from the very beginning, the stamp of fatality and utter hopelessness. Surgical interference will invariably be resented and prove useless, and in most instances an incredibly rapid course will be its inevitable sequence. If it is secondary and appears under one of its most treacherous garbs in the eye itself, when it begins as an intra-ocular glioma or sarcoma, its course may be marked at first, but its subsequent declaration and progress are equally rapid and fatal.

As already stated, there is for these unfortunate cases no surgery which holds out more than a partial and temporary relief from suffering. During the early stages an exploratory operation, to determine the nature of the growth and its exact location and attachment, is not only justifiable but indicated. In the more advanced stages surgery becomes wholly a measure of expediency with but one object to be accomplished—*i. e.*, to afford relief by lessening suffering and averting exhausting hemorrhages and possibly retard an otherwise more rapid progress. What this surgical interference shall consist in can only be determined by the judgment of the surgeon and the special indications in particular cases.

Disappointment, greater suffering, a more rapid course must invariably follow radical surgery undertaken with the hope to eradicate the one conspicuous local expression of the disease. It is certainly more humane to counsel against such interference rather than advise it, when experience has demonstrated the inexorable course of malignant disease of this locality and the hopelessness of even the most radical surgery. And by this is meant not only complete excision of the growth, exenteration of the entire cavity, with removal of the periorbita and eyelids and resection of the bony walls, supplemented by the use of the thermo-cautery.

I have at present under observation a little patient with this most dreaded variety of malignant disease. Ten days before the case was brought to me for consultation, or about nine weeks ago, the parents first noticed prominence of the left eye. This increased rapidly. An exploratory operation was resorted to at once to determine the character of the tumor, and unfortunately disclosed a sub-periosteal sarcoma starting in the extreme apex and roof of the orbit.

As a preventive to future suffering the prominent globe was removed and the orbit exenterated, with no hope that the inexorable course would thereby be influenced. For two weeks the child was comfortable, then the growth returned with startling rapidity and assumed the dimensions shown by the accompanying sketches made by her physician, Dr. Jessup.

The purpose of this communication is to call your

attention to a less frequent and less dreaded expression of malignant disease, and to emphasize the merits of prompt and thorough surgery in all cases of epithelial carcinoma of the orbit, even if extensive implication of the bony framework and adjacent pneumatic sinuses may be present. These destructive neoplasms of the orbit assume, in many cases, a rodent type and invade often, also, the adjacent regions of the face and head. From an insignificant beginning, or a so-called irritable wart of the lid margin, or an "inflammatory pterygium"—both in reality expressions of an epithelial new growth—they advance steadily from small to extensive proportions, concealing for months and years their inherent destructive properties. Even after their true morphological nature is recognized or is unmistakably declared clinically, they may deceive us by apparently yielding to the surgical measures—excision, curetting, etc.—ordinarily employed, or the use of caustic pastes, electrolysis, galvano-cautery, etc., only to reappear with renewed activity after a variable period of inactivity. When once the septum, orbital and deeper connective tissues of the orbit have been infiltrated, the periorbita, bony walls, adjacent pneumatic cavities give way to the destructive invasions of the disease and nothing checks its inexorable advance.

The following cases support the statement that radical surgery may, in certain cases of malignant epithelial carcinoma of the orbit, be attended by the favorable results which are never achieved in other forms of malignant disease of the cavity.

CASE I. *Epithelial carcinoma of right orbit. Exenteration; resection of bony margin; opening of frontal sinus, etc. Recovery.*

A. F., aged 58, was admitted to the Cincinnati Hospital with an extensive neoplasm of the right orbit. The rodent growth had destroyed both upper and lower lids, and the globe, which had shrunk into a small mass, was covered with a lobulated, easily bleeding tissue. The entire bony margin was infiltrated and also the inner wall. Excision of the growth with exenteration of the entire contents of the orbit and denudation of the periorbita, followed by the removal of the infiltrated areas of the bone and opening of the frontal sinus, which was found

invaded by the growth, was practised with deliberation and thoroughness.

An interval of years has elapsed and no return of the growth has come about.

CASE II. *Epithelial carcinoma of right upper and lower lids, globe and orbit. Complete excision of upper and lower lids, exenteration of orbit and denudation of periorbita. Recovery. No return.*

J. J., aged 50.—Epithelioma of lower lid, of fifteen years' duration, had been treated by excision, caustics, etc., with no relief. The entire inner wall of the orbit and inner side of globe were covered with an epithelial neoplasm, which also infiltrated both upper and lower lids. The entire palpebral area was circumscribed by an incision and the periorbita loosened and the entire contents of the orbit exenterated. Five years have elapsed, the patient has been seen recently and no return has come about.

CASE III. *Epithelial carcinoma of lower lid, globe, floor of orbit, maxillary, frontal, ethmoidal and sphenoidal sinuses.*

*Operation: Removal of lids, exenteration of orbit, exploration of frontal, ethmoidal and sphenoidal sinuses, and partial resection of upper jaw. Death.*

The patient, a woman aged 62, began the treatment of an epithelioma of the lower lid about twenty years before. Caustics and surgery were resorted to by cancer specialists and reputable surgeons. The interesting feature in this case was that the disease, during the last three years, withdrew its activity from the surface structures and concentrated its destructive work in the adjacent sinuses. The last operation revealed hidden recesses of the disease, especially in the frontal, maxillary, and sphenoidal sinuses. The patient died seven days after the operation.

These cases demonstrate that epithelial cancer is, of all expressions of malignant diseases, the most amenable to surgical treatment. Surgery, however, must be resorted to with unerring thoroughness, and in a certain number of cases accomplishes permanent arrest or disappearance of the disease. Surgical interference must be preferred to the use of caustic pastes or the use of thermo-cautery or galvano-cautery, for the reason that, under

general anesthesia, it can be done with deliberation and completeness without subsequent suffering.

The well-known tendency of epithelial carcinoma to attack the bony walls and to invade the adjacent sinuses should prompt, in every case, an exploration of these cavities.

Exenteration of the orbit is not sufficient. It must be supplemented by removal of the eyelids, periorbital, resection of the bony margin and, if necessary, of the walls of the orbit, as well as exploration and exenteration of the adjacent sinuses.

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## A LONG, USEFUL AND BUSY LIFE ENDED.\*

BY DR. W. G. SMITH, RAVENNA, O.

It seems fitting, at the present time, to pause for a brief moment amidst the bustle and worry of this fretful world, to ponder over and extract a few of the many lessons taught in the long and successful life of our esteemed friend and co-laborer, the late Dr. Joseph Waggoner.

There are times in the life of every individual and in the history of every organization when ordinary affairs are brushed aside, and we are brought face to face with the stern realities of life. In the death of Dr. Joseph Waggoner, which occurred at his residence on East Main street, Ravenna, O., on Sunday evening, June 6, 1897, the Portage County Medical Society and the profession at large have lost a valuable member. We recognize death as inevitable, and that the aged must pass out and away from us. Yet, when the fatal arrow pierced the heart of our esteemed friend and co-laborer we, together with the whole community, are left to mourn a loss which is felt most keenly. We, as co-laborers of the deceased, can truly say, with the poet, "After life's fitful fever he sleeps well." His willingness and earnestness, his honor and integrity, his gentleness, coupled with firmness, all backed up by an uncompromising spirit to do the right and fear not, has won for him the warmest appreciation of those among whom he labored, as well as of his profes-

\* Read before the Portage County Medical Society, July 1, 1897.

sional brethren. Unflinchingly he made his strides forward in his chosen profession, and we all gladly acknowledge that success crowned his efforts. Many a time had he looked into the face of death; many a time had he heard the swift sweep of those dark pinions as they heralded the approach of the dread messenger to the tenements of clay; and many, many times, by the power of his knowledge, the arch enemy has been robbed of his prey. Yet, when the summons came to him, he too was compelled to surrender his implements of warfare and submit to the inevitable.

Dr. Joseph Waggoner was born in Richmond, Jefferson County, O., on December 30, 1821. The deceased was the tenth in a family of twelve children. His early life was spent on his father's farm. He began teaching school at the age of eighteen years, and when twenty-one he entered the academy at Steubenville, preparatory to a thorough collegiate course. His health failing, he was obliged to abandon the latter project, and after leaving the academy and resting a year he began the study of medicine in Steubenville, in the year 1843. The degree of M. D. was conferred on him by the Cleveland Medical College. In 1847 he located in Deerfield, this county, where he practiced his profession for sixteen years to the entire satisfaction of the citizens of that township. At that early date it meant a great many hardships and trials to overcome, to practise medicine in the country, that we of a later day will never know anything about by experience.

It was while practising at Deerfield that he made the acquaintance of Miss Mary Rigal, whom he married in June, 1862. He removed to Ravenna in 1863, where he had been since continuously engaged in the practice of medicine, even to within a few hours of his death.

He built up a large lucrative practice and, with all due respect to his co-laborers, I think I may say truthfully that no other physician in Portage County ever enjoyed and retained the confidence of so many of our citizens as our departed friend.

His success was due to many things. In the first place, he was a faithful student—and knowledge is power. In his case it led to accuracy in diagnosis. He was mas-



ter of himself. No matter how heavy hung the professional clouds or how severe the cases he was contending with, he never betrayed his emotions. Although a man of positive convictions, he was full of charity for others. He always had a kind, cheerful word for every one, and men were drawn to him. He was a man that was always bright and cheerful and confident, inspiring his patients with courage and hope—two things so very essential to recovery. While he was the very embodiment of firmness, yet this was tempered with kindness and sympathy to such a remarkable degree that the heart of the sufferer was drawn toward him. He made his patients feel the deep interest he took in them. They felt that he was their special property; that he would desert all else for them, and that they were subjects of his special vigilance and care. He was always attentive and punctual. He knew no classes, castes, or distinctions. He put himself on an equality with everybody, and had the happy faculty of being able to do it gracefully.

No one realizes more than myself how far short I have fallen of paying any just tribute to his memory. The doctor's devotion to his profession was an attribute that appealed strongly to his fellow physicians. We miss him here to-day. Although dead, he yet speaketh. His influence will never die. The elements that contributed so largely to his success will make a successful life for any one. Shall we not emulate his virtues and perpetuate his memory?

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#### TYPHOID FEVER IN THE VERY YOUNG.\*

BY G. JAMIESON MARTZ, M. D., GERMAN, O.

In consulting the older authorities on practice we find little mention of typhoid fever in young children, and at the present time there are many physicians who are yet skeptical as to the occurrence of typhoid in the very young, at least. In the past six years I have treated seventeen cases of unmistakable typhoid fever in children ranging from fourteen months to five years of age. Three of these cases were less than twenty-four months

\* Read before the Ohio State Pediatric Society, May 19, 1897.

old, and in each instance there were other members of the family sick with the fever at the same time. I have observed these cases to go in apparent epidemics, and it seems to me that dysentery was more prevalent and more difficult of cure during these years also. I will report the history of three of the most interesting cases with a few observations as to the course of the fever, diet and treatment in the same.

CASE I.—Gussie C., aged 22 months. A sister, aged six years, was sick with fever at the same time. My attention was called to this case on August 28, 1896. She then had considerable fever with some looseness of the bowels. I requested the nurse to take the temperature four times in the twenty-four hours, and always in the rectum. This is my invariable method with children. The fever range was typical and for the period of one week, from September 8 to 15, was high, with nervous symptoms marked. The temperature became normal September 25. Diarrhea was severe, tympanites slight, with considerable gurgling in the right iliac region. Rose-colored spots appeared on the abdomen on the eighth day of fever and remained for about three days—they were five in number. This child had severe attacks of epistaxis at three different times, and on the 16th and 17th days of my attendance showed considerable blood in the stools. She had an uneventful but tedious recovery, slightly prolonged by a parotitis on the left side. I advised her mother to have her hair cut off, but she refused. The child lost her hair completely during convalescence. Her bowels remained irritable for some weeks after recovery. There was a tendency to diarrhea.

CASE II.—Addie M., aged 20 months. A relative of this boy had just passed through a severe attack of typhoid. I was called to see the patient on July 30, 1895. The fever had a typical range. Diarrhea was excessive and hard to control, and digestion seriously impaired. The fever did not run so high as in case I. Nervous symptoms were slight. Tympanites was slight until the last week of fever, when it became serious and was associated with a severe attack of bronchitis and nearly complete suppression of urine for three days. Fever disappeared on the 27th of August. There were no rose-

colored spots on the abdomen, no epistaxis, no intestinal complications outside of those mentioned. Recovery was fairly rapid but an albuminuria continued for some weeks in spite of treatment. I have treated this child since then and find that a slight illness will produce albumin in the urine in marked quantities. In health the urine shows normal. This child has an hereditary history of chronic dyspeptics back of him, which may have had some influence in disturbing his digestion so seriously.

CASE III.—Eugene S., aged 14 months. I was called to see this case September 2, 1895. The child had been weaned about three months. Well marked typhoid symptoms were present. There was no diarrhea, but any laxative had excessive action. He was a large, plump, well nourished baby in the beginning of the fever. Extreme prostration occurred early, with marked anorexia and a heavily coated tongue during the first few days. The tongue was red on the margins, with lips and tongue very sensitive and bleeding frequently. Epistaxis was severe, especially at night. It was very hard to give him sufficient nourishment owing to the sick stomach. Severe cardiac weakness developed on the 19th day of fever, producing a dropsical condition, which persisted for several days after disappearance of the fever. The fever did not run above 103.5°. It was recorded four times in the 24 hours. His temperature was normal on September 29, and continued so with only slight elevations. His appetite returned nicely, and a complete recovery ensued. This child had as complete a shedding of epidermis as I have ever witnessed in severe scarlatina. Nearly all his hair fell out, also the spleen was much enlarged.

This last case is the youngest person with unmistakable evidence of typhoid fever that I have ever treated. Abercrombie, in 1817, reported cases at six and seven months of age, Charcellay, in 1840, a case eight days old, while Murchison has reported cases at eight and fifteen days old and even reported unmistakable signs in a fetus of seven months, whose mother had a typical and severe attack of typhoid. Eberth demonstrated the bacillus to be present in a fetus of twenty weeks, where the mother expelled it during the third week of typhoid. Of 1297 cases reported by Hensch and Fogel, 43 per cent. were

between the ages of five and ten years. Although the specific bacillus was discovered by Eberth in 1880, there is no report of successful inoculation on lower animals as yet that I have ever been able to find. Instances are on record of the germ retaining its vitality for several days and even months. Bad hygienic and unsanitary conditions favor it. Water and milk are the chief sources of infection. I do not believe that young persons and children are nearly so susceptible as adults to the typhoid poison.

Diagnosis is often difficult. I rely on the following chiefly: Typical typhoid condition of apathy; stepladder range of fever, if a proper record be taken, and it should be taken at least four times daily; fever nocturnal; less tendency to sweat than in malarial types of fever; rose-colored spots occasionally observed, not common in very young patients; typhoid odor; intestinal symptoms; usually an epidemic of this fever running at the same time. I have noted enlarged spleen in about one-half the cases I have treated. It has been the most difficult for me to discriminate from the following diseases in the order in which I name them: Malarial fevers, meningitis, and gastro-intestinal catarrh which has become chronic in nature. It may be further mistaken occasionally for tuberculosis, influenza, or possibly pneumonia. Usually the pulmonary complications do not occur in typhoid fever, though, until the diagnosis is firmly established, *i. e.*, late in the disease. The prognosis is usually good.

*Treatment.*—Insist on as nearly absolute rest of body and mind in the child as possible. Isolate the patient, bathe regularly, give plenty of liquids, boil water, have an abundance of pure air, keep the bed absolutely clean by frequent changes, avoid feather ticks and feather pillows, cut the child's hair if long or very heavy, keep other children out of the room all the time, disinfect all discharges of the patient even if there be no diarrhea. I always use some disinfectant in the room also. You can hardly give a child too much liquid, especially if its fever range is high. I have noted a less elevation by nearly one degree of fever where cold water has been systematically and regularly given to the child in proper

quantities. I always permit them to have little pieces of ice where fever is high and mouth very dry. All foods must be liquid, as nearly as possible at least, no *solid food* is to be given. I insist on giving them boiled milk in a great majority of cases. I usually give as much milk as they can digest and assimilate. It is my custom to prescribe pepsin and muriatic acid very much diluted. You can give broths, farinaceous dishes that are strained, meat juices, white of soft boiled eggs, and should give more albuminoids as a rule than carbo-hydrates. It has been my observation that the condition of the bowels can often be favorably influenced by the character of the food; *i. e.*, if constipation develops give chicken broth not too closely skimmed of the fat; if diarrhea is severe, mutton broth will often have a soothing effect. As bronchitis is quite common it is well systematically to examine the condition of the lungs, especially in the very young, and have the position of the patient frequently changed. High fever at an early period is usually indicative of a severe type of fever and should be combated. I am not partial to cold baths in the very young, and have observed that an antipyretic given so as to have its effect about the time of the bath is the most satisfactory treatment to reduce fever. I have found cold applications over the heart and to the head to be most valuable. If the surface extremities are cold with high internal temperature, give a warm bath. The drugs which have proven of the most service to me in reducing fever are the following: Phenacetin, acetanilid, antipyrin, tinct. aconite in early stages, salicylate of soda, sweet spirit of nitre, and quinia. I have always made it a rule to use drugs only if I were unsuccessful in reducing the fever by means of the bathing.

Diarrhea is not usually severe in young persons. The subnitrate of bismuth used freely and the sulphocarbolate of zinc are my favorite remedies. It is my custom to give a good dose of calomel right in the start and often to prescribe quinia the first few days. If the splenic enlargement is great, I often continue the quinia for several days. If constipation is present rectal injections of tepid water with a little soap added or possibly a little turpentine or glycerine are valuable. If tym-

panites is severe give turpentine or assafetida enemas. Perforations and intestinal hemorrhages are rare in young patients. The remedies usual in adult cases should be prescribed, *i. e.*, ergot, cold, digitalis, pressure, saline transfusions, etc. It is my custom to prescribe arseniate of strychnia or strychnia during the whole course of the fever. It is my opinion that we have a valuable remedy in nuclein. It is a favorite with me in the latter half of typhoid and during convalescence.

Heart failure is not uncommon in children. Its most marked symptoms are frequent, weak pulse, cold extremities, pallor of skin and mucous membranes, and cyanosis. My favorite remedies are brandy given in hot milk and per rectum if necessary and glonoin repeated in half-hourly doses until reaction occurs. The use of hot mustard baths for the feet and poultices on the abdomen is another method that has proven valuable to me. Keep the room darkened. Where the child is quite nervous, it is my custom to prescribe bromid of potassium and phenacetin. If the diarrhea is severe we may be compelled to give tinct. opii with aromatics. I am using codein nearly exclusively at present. It is my set rule to permit no solid food for two weeks after disappearance of the fever. Give quinin if the spleen remains much congested; an enlarged spleen may mean relapse. I have met with one case of purpura as sequel of typhoid, one case of parotitis (mild), and two cases of albuminuria. It is my judgment that typhoid fever is comparatively frequent in young patients, and I fear it is often overlooked and regarded as some more usually expected form of disease.

#### DISCUSSION.

DR. KNOWLTON, of Cleveland: I am very much interested in this paper of the doctor's, and his careful study of the subject. I remember the first book I read on diseases of children was Condie. I believe he calls this disease enteric fever of children. I do not know whether there has been any issue of the work for forty years. I am not certain whether Condie considers this identical with typhoid fever, but I think not.

It has been my experience to meet with these cases,

perhaps none in infancy, that I recall at the present time, though very likely I have overlooked them in mistaken diagnosis; but I have seen a number of cases in quite young children corresponding to those described. The paper brought to mind a case I saw a few days ago. I was called into the country to see a little girl five years of age, who had been sick a week. She had a rather low range of temperature, never higher than  $103^{\circ}$ , scarcely any tympanites, no gurgling, no spots; tongue a little coated, a little red at the edges. The fever was continuous, with no complete intermission. The doctor was puzzled. I spoke of these cases as described years before by Condie, and I said, "now I presume this may be a case of typhoid fever." There were no cases in the neighborhood. The doctor was acquainted and would know. I thought perhaps it might run along two or three weeks. I told the family they need not be surprised if the case ran along three weeks from the onset of the trouble. I was called out later, perhaps three weeks after that. This child was still having a little fever. But another child had come down in the meantime and had broken out with rash, and the doctor in attendance, a young man of very limited experience but willing to learn, had called in a neighboring physician. He thought it was probably a case of scarlet fever. The rash was over the entire body. When I was there, there was in the case of the first child a little desquamation. The child had been sick I think between two and three weeks, but was really convalescing with a very low temperature. The second child had a little sore throat. The other child, the one that had been sick with the continued fever, did not contract this other trouble. The cases were rather puzzling. I have no doubt the first case was one of typhoid fever, and the second might possibly have been an anomalous case. Do I understand the doctor he has seen this desquamation?

DR. MARTZ: One case.

DR. KNOWLTON: Have you noticed any red rash?

DR. MARTZ: No.

DR. KNOWLTON: I never have, although I remember the case of an adult in which there was a rash all over the body. In these cases I approve of the free internal use

of water. In these little ones instead of immersing them as adults, I usually have them sponged and find it answers the purpose.

DR. MCGEE, of Cleveland: Like the doctor, I would use phenacetin. I have never seen any serious results follow it. I do not use the cold bath. I prefer sponging, as Dr. Knowlton does, with small doses of phenacetin.

DR. MARTZ: I have nothing particular to add, further than that I have had some rather peculiar experiences in treating what I pronounced and what I think to have been influenza this past winter. We had a severe epidemic of it through my part of the State, and it was remarkable how rapidly an apparently well person would become desperately sick. In all of these cases with a few exceptions there was intestinal disturbance. In some instances the fever would begin with quite a rapid rise, and you would have a more or less congested condition of the lungs. I would examine them with a good deal of solicitude fearing I was going to have pneumonia. In a good many instances, perhaps upward of twenty, which I observed during that epidemic, it would begin with that kind of history and then apparently pass off through crisis of the intestinal canal with more or less tenesmus and griping, and in a few instances was something like typhoid.

If any member of the society knows of a case of typhoid fever being induced in the lower animals I wish he would report it. I have looked up all the literature I have at command, and have made some inquiry, and I think there is nothing authentic of that character. If you can transmit typhoid to animals in any form I would be pleased to hear of it.

DR. BAILEY, of Cleveland: I think we have a condition of children, and in adults, where it is rather hard to distinguish. These cases of influenza would start out and have all the appearance of a typhoid, but it would be a matter of only three or four days and the whole thing would be relieved. I met with quite a number of cases last year of that nature, and they puzzled me, but they must have been simply cases of influenza. In this matter of pure typhoid I have not met with what I call typical cases of typhoid in a good many years. The nearest approach to it was in a child about three years of age;



but we are led to believe that the glands in very young children are not fully developed, and the glands are the parts affected. It is not a matter of months but a matter of years. And if it is enteric fever I think we fail to get it in the very young as a usual thing.

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## TREATMENT OF CERTAIN CORNEAL LESIONS BY HYDRAULIC CURETTING WITH SUBLIMATE SOLUTIONS.\*

BY THOMAS H. PLEASANTS, M. D., HELENA, MONTANA.

MR. PRESIDENT AND GENTLEMEN:—

In response to a kind invitation from the secretary of this association, Dr. Hal Foster, to prepare and read a paper upon some appropriate subject; and appreciating the fact that each one of us, perhaps, at some time during his professional career has had a case of corneal ulcer or abscess which has persistently resisted every effort on his part to bring about a condition of satisfactory resolution, and where every remedy applied only seemed to add fuel to the fire, I have thought that it might not be wholly without interest to report my experience in the treatment of these cases by a method, the descriptions and technique of which I will attempt to set forth in the following pages.

I know of no subject which is so full of interest, both to the physician and to the patient, as the subject of corneal lesions and their proper and improper treatment. It means to the patient on the one hand a life of happiness and usefulness, on the other a life of woe and despair; to the physician on the one hand the proud consciousness of having given to his patient the benefit of a treatment which results in preserving his sight—to him the dearest thing on earth—and on the other the everlasting reproach of conscience for not applying a certain treatment, if such is known to possess a specific virtue in excess of any other known treatment, thereby entailing upon this patient a life of untold distress which, under certain conditions and circumstances is intensified many times over.

If a physician knows of a remedy that will bring about better conditions than those remedies which have

\* Read before the Western Ophth., Otolog., Laryng. and Rhin. Assoc., Apr., 1897.

heretofore been used in the treatment of corneal lesions—and with results anything but always satisfactory and uniform—then it becomes his solemn duty to suffering humanity to herald to the world that remedy, no matter what it may be, or however indifferently he may convey his knowledge of the remedy to others, so long as it can be demonstrated to be a decided benefit and improvement over other already known methods of treatment. Since the first case upon which I used the method of treatment under consideration, I have yet to record a single failure to discharge a patient with other than good and useful vision, but I hope I shall not be misunderstood, in making this statement, to claim that any and every case will be restored to perfect vision, no matter how extensive the ulcer or how large the abscess. I can never cease to regret the fact that I was unfamiliar with “hydraulic curetting” when, three years ago, a patient with an infected trachomatous ulcer of the right eye applied to me for relief. After making a thorough examination of the case, I was satisfied that I had a serious trouble to deal with and one which held out little hope for the welfare of my patient's sight in that eye. I used faithfully and in rotation every known remedy which had ever been advocated, except the one remedy which forms the subject of this article. Result: Total loss of sight in the eye, with a dense leucoma and anterior synechia. I felt lucky in not having to remove the globe for panophthalmitis.

During the past eighteen months I have been called upon to treat many cases of corneal lesions with results so eminently satisfactory, both to myself and to the patients, that I feel constrained to report at least three of the cases which were treated by hydraulic curetting with sublimate solutions. In the September number, 1895, of *Annales d'Oculistique*, page 198, is an article entitled “Hydraulic Curetting of the Cornea,” contributed by Dr. Santarnecchi, of Cairo. In this article its author goes on to say that out of every one hundred cases of ocular diseases in and about Cairo about seventy cases have some form of corneal lesion, and frequently of a very severe type; and he describes briefly the different methods of treatment as applied to corneal ulcers and abscesses which have been in vogue at different periods. He discusses keratotomy

as proposed by Saemisch, its advantages and disadvantages. The actual cautery which, in the general enthusiasm attendant upon its use, supplanted Saemisch's keratotomy for a time, but which is being relegated to oblivion, owing to its disastrous effects when the ulcer is at all large, because it so often destroys the healthy as well as the diseased tissue and leaves behind an indelible stigma. "Another method then," he goes on to say, "is necessary which will be less disturbing and less dangerous for the patient, and which," quoting Dr. de Wecker, "will substitute for an ulcer the walls of which are infected and invaded with micro-organisms, a wound in healthy corneal tissue, which an occlusive and aseptic dressing will guarantee against new infection. Such a result may be expected with greatest confidence from curetting; but Dr. de Wecker himself states that curetting alone is not sufficient, and that it should be followed by energetic irrigation to remove the portions of infected tissue which the most careful curetting will not carry away." Dr. Santarneckchi then goes on to describe what he calls *hydraulic curetting*. He uses a syringe holding, say, one ounce, and fitted to the syringe is a fine nozzle, which I should judge is of about the same calibre as that of an average size hypodermic needle. The syringe is filled with a one to one thousand sublimate solution. After first instilling several drops of a one per cent. solution of cocain into the eye and waiting a sufficient time for its anesthetic effect, he separates the lids as widely as possible, and directing the jet of sublimate solution against the ulcer or wall of the abscess gradually increases the force of the stream until the last portion of adherent ulcerated tissue is removed. He takes the precaution to instill a few drops of atropin solution in suspicious cases—that is, where he has reason to believe that the iris is involved, or in those cases where the opacity of the cornea is so great as to render it difficult for the surgeon to ascertain the exact condition of the iris.

Bearing in mind the case of infected ulcer of the cornea which I have mentioned, and the destruction of sight which followed, I determined to use this method of treatment—namely, *hydraulic curetting*—on the next case that presented itself,

which seemed a suitable one for the treatment. On December 1, 1895, T. M. sent for me to see him at the "Sisters' Hospital" of this city. Upon examination, I found that his left eye had been destroyed from injuries which, he stated, were received during the civil war. His right eye was intensely congested and exceedingly painful. In the inner and lower quadrant of the cornea was a large ulcer which was bulging, and the anterior chamber contained pus—about one large drop. The pupil was very small and photophobia excessive. His history was about as follows: He was a sheep-herder by occupation, about sixty years of age and of intemperate habits. About two weeks prior to the time I first saw him he was attending to his duties herding a band of sheep when there came up a wind storm. Dust or some other foreign body entered his eye. That night he suffered great pain and it increased the following day. It became so severe that he went to White Sulphur Springs for the purpose of getting something to relieve him. He was given some sort of powder, as he says, to have blown into the eye. Not experiencing any relief from this remedy, he came to Helena. He saw a physician here who gave him some eye lotion to use as directed. He still suffered pain, but continued to use the treatment for a week or ten days.

At the end of that time he was persuaded to have me see him and prescribe for him. His was a case where injudicious treatment meant total blindness. I must confess that I felt like turning the case over to some one else, because I was almost certain that he would lose his sight; but I went to work to improvise a syringe and, fitted a hypodermic needle into it so that the stream would be small, and with this instrument filled with a one to one thousand solution of bichlorid of mercury, I succeeded in thoroughly cleansing the surface of the ulcer from all dead tissue. There were moments when I was in dread of breaking through the thin membrane with this stream, but I did not, fortunately, and after instilling a few drops of a four-grain atropin solution I closed the eye and sealed it with an antiseptic dressing. Ordinarily we should expect to find, on examination of the eye the next day, very considerable reaction from the irritation of a one to one thou-

sand bichlorid solution. As a matter of fact, however, there was very little. The conjunctiva was slightly puffed, and the patient stated that he had suffered very little pain following the operation. There was a very marked general improvement in the eye, and the condition was so much better than I had any hope of finding it that I was quite delighted, but was almost afraid, as yet, to put much faith in the treatment. However, I repeated the operation of the day before in every detail, and on the third day I noticed that the hypopyon had diminished one-half, and the pain in the eye had entirely disappeared. Now it was that I began to have hope. On this third day of treatment instead of using the sublimate solution I used a saturated solution of boric acid. I did so more because Dr. Santarnecchi advised doing so than for any other reason, but on the fourth day, no ground having been lost, I again used the sublimate solution, but this time it was in a reduced strength, one to fifteen hundred. On the fifth day the hypopyon had disappeared entirely, and I noticed numerous minute blood-vessels creeping towards the surface of the ulcer, the repair blood-vessels. From this time on the recovery was uneventful and rapid. The cornea cleared up, the engorged blood-vessels of the conjunctiva began to be emptied, and a general clearing up of all the tissues of the eye took place. At the end of twelve days I discharged the patient, with vision  $\frac{1}{80}$ , with the glasses correcting his ametropia, which was of low degree. I will state that this man had had, on several occasions (the last one previous to this, three years ago), attacks of inflammation in his eye, and I discovered that it was a plastic iritis, which left the iris adherent to the lens in several places. He denied strenuously ever having had syphilis.

The second case is somewhat different from the foregoing, but the treatment was just the same. D. M., age 42, applied to me on February 28, 1896, for treatment. He was a miner by occupation, and stated that three or four days before coming to see me he had been struck in the eye with a piece of quartz or steel, he could not say which; that he did not pay much attention to it at first, but his eye gradually commenced to hurt him and it finally became so painful that he had to give up and seek

relief. Upon examination I found, in the center of the cornea of the left eye, a grayish looking ulcer, and surrounding it in every direction was a milky infiltration between the layers of corneal tissue. He was suffering greatly and was unable to open his eye without causing great distress, and his vision was reduced to less than  $\frac{10}{200}$ . I was satisfied that I had on my hands the beginning of a case of corneal abscess. I instilled a few drops of cocain solution, four per cent., and then proceeded to apply the hydraulic curetting, using in the syringe a one to one thousand sublimate solution. The corneal tissue at the point where the injury was received was soft and pulpy. I succeeded in removing all of the soft dead tissue and applied an antiseptic dressing and bandage on the eye, telling him to return on the following morning. What was my surprise and delight to find that the milky appearance of the cornea had almost entirely disappeared, and that the sight was so much improved that he could distinguish at twenty feet distance the letters in the second line of test type, and that he practically had no pain at all. The treatment was repeated twice more, under strict antiseptic precautions, and, to make a short story still shorter, on the fifth day he was discharged from my care with but the faintest opacity. I saw this patient a month later and the opacity had entirely disappeared.

On October 7, 1896, Christian H., a machinist, came to my office in a state of great physical suffering and also mental distress. He said that while at work in the shop, the day before, a particle of steel or iron had been thrown against the left eye with great violence, but that after suffering a slight momentary twinge of pain he went on with his work until it was time to quit, being then nearly six o'clock. When he reached his home, however, the pain returned, and in spite of soothing applications of first one kind then another, it continued to grow rapidly worse, and he spent the night mostly in walking the floor, and when morning came he was at my office bright and early. Before describing his injury, received the day before, and for which he sought my service, I will state that two weeks previously he received an injury almost identical in every detail, only it was in the right eye. He

received attention from another physician in the city, who gave him the usual routine treatment, but the injury evidently became infected, for his sufferings were excessive and his cornea, surrounding the point of injury, which was in the center of the pupillary area, was so very much infiltrated and hazy that he was unable to see any letter on the card of test type; even the outline was totally invisible. The pain had been continuous and was still present when I examined him. At the exact spot where the foreign body struck the cornea there was still an open ulcer which was small, about the size of a millet-seed, but covered with a soft pulpy deposit. My reason for describing the first injury will become known presently because I desire to use it in drawing a comparison on the results of different treatment used in the two eyes.

Now for the injury to the pupillary area of cornea of left eye. Upon examination, after first making two or three instillations of a four per cent. solution of cocain into the conjunctival sac, for the pain and photophobia were very great, I found lodged in the center of the cornea a black speck, which proved to be firmly implanted when I attempted to remove it; and after removal I made a more critical examination of it and found it to be a speck of iron, and the corneal tissue underneath where it had lodged was found to be burned, showing that the speck of iron was very hot when it struck the eye. With my spud I removed as much of the burned tissue as I dared to, and then proceeded to use my bichlorid of mercury solution, directing the stream with very considerable force against that portion of cornea which was affected by the foreign body, until I was satisfied that I had removed every possible germ of infection. I then introduced a few drops of a solution containing two grains of atropin and four grains of cocain in one ounce of a saturated solution of boric acid. There was for a few minutes very sharp pain following the use of the bichlorid solution, but it subsided entirely inside of a half hour. I then repeated the operation of "hydraulic curetting" on the right eye, using the bichlorid solution as I had just done in the left eye. I kept it up until I had thoroughly cleansed the surface of the ulcer already described, and after using atropin in this eye also, because there was very sharp pain in the ciliary region below when I made moderate pressure upon the globe, I bandaged both eyes,

after first rendering the region around the eyes, as well as inside, perfectly aseptic, and took him home. I saw him next day. He passed a painless day and night, sleeping a great part of the time, and when I removed the dressing I found everything as perfectly satisfactory as one could reasonably wish. I re-applied the dressing as on the day before, only using a little hot boric acid solution outside and the atropia and cocain solution inside. The next day, upon visiting him, he stated that there had still been no pain whatever, and that he could not see why I should keep him shut up in the house when he had so much work on hand that ought to be done. After a little persuasive eloquence I managed to get him to look at the matter in its proper light and remain quiet at home until I was satisfied it was safe for him to go out. There being a little soft grayish tissue still left on each eye at the point of injury, I used, for safety, a one to three-thousand solution in the syringe, applied as usual, and dressed as on the previous day. This was all that I did in the way of curetting. His vision to-day is  $\frac{3}{8}$  in each eye.

In reporting these three cases, I have selected them from the whole number treated, as fairly representative of the several classes of corneal injuries to which I have applied this treatment, and I have tried to keep within bounds and not prolong their recital unduly, and at the same time give a fairly lucid description of the cases and their progress under treatment. I desire particularly to disclaim any credit for originality in the method of treatment, because to Dr. Santarnecchi of Cairo alone is the honor to be ascribed. I am only a humble disciple, but I do desire to proclaim to the world in stentorian tones the fact that, so far as my experience—covering a period of over eighteen months in the application of this method of treatment—is concerned, no remedy or method of applying any remedy for the treatment of corneal lesions has ever been advocated that, in my opinion, can begin to show the percentage of perfect results as the “treatment of certain corneal lesions by hydraulic curetting with sublimate solutions” can show, and I shall feel particularly gratified if the profession at large will use this method of treatment oftener, instead of prescribing a bottle of eye lotion and let the patient take his chances on the general result, as has so often been done, to the great detriment of the patient’s sight.





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CHANGES IN ADVERTISEMENTS or addresses must reach us not later than the fifteenth day of the month preceding issue, to be corrected in the current number.

## Editorial.

### AN ORGANIZED MEDICAL PROFESSION.

Ours is an organized profession. We often hear complaints of a lack of cohesion among the members of the medical profession, and a disagreement among doctors is bruited far and wide. It may be true that, in small areas, the brethren do not always dwell together in harmony, and it is a melancholy fact that there is not always sufficient concert of action in dealing with great questions outside of but affecting the medical profession. But doctors are by no means solitary in their habits and always disposed to range alone over extensive territory, as some suppose. They are, in fact, quite gregarious in their instincts, and although usually hunting alone for subsis-

tence, are apt to collect in herds with others of their species upon every favorable occasion. Differing from most animals, which are apt to gather into herds in the fall, doctors, it seems, most feel the gregarious instinct strong upon them in the spring. The months of May and early June are the favorite seasons for collecting in bands and droves. Glance for a moment at the names of some of the organizations meeting during those months. There is the great and growing American Medical Association. There is the high and mighty American Academy of Medicine, whose object is to show how much better doctors are made of college bred men than of those whose advantages have been fewer. There is the American Association of Medical Colleges, striving to advance the standard of medical education; the National Confederation of State Medical Examining and Licensing Boards, who, we hope, will succeed in getting uniform requirements—and those of the highest—in all the States.

Then we have the American Medical Publishers' Association, which looks after the interests of the business end of medical journalism, and the American Medical Editors' Association, whose members *should* include the editor of every reputable medical journal in the land and wield a powerful influence for good. This association held a very pleasant and profitable meeting of representative editors this year, during the meeting of the A. M. A. at Philadelphia. The Association of Military Surgeons of the United States met at Columbus on May 25th, 26th and 27th; was presided over by Dr. Albert L. Gihon, Medical Director of the Navy; received representative medico-military men from several foreign nations, transacted a large amount of scientific and other business, and gave our esteemed contemporary in the village where they met an opportunity to get out a splendid souvenir number giving an account of the meeting and the men who were there. The American Pediatric Society also meets in May, and does good work every time it meets.

We must not fail to mention the American Climatological Association and the American Association of Genito-Urinary Surgeons, because societies are like individuals—each is apt to imagine his work is more conse-

quential than that of any one else, and of course should be mentioned. Then there are the American Gynecological Society, the American Laryngological Society, the American Temperance Association, the American Medico-Psychological Association, the American Neurological Association and the American Ophthalmological Association. It is pleasing to see that whatever the differences which have caused them to flock apart, they are all united on one point—to be American. But these are not all. The editor's desk is loaded down with notices of the meetings of the American Surgical Association, the Association of American Physicians, Association of Superintendents of Hospitals for the Insane, Association of Assistant Physicians of Hospitals for the Insane, Association of Life Insurance Medical Directors of America, the American Gastro-Enterological Association. There goes "American" again. Does it sound to our English cousins as numerous and inevitable as their "Royal" does to us? For a change we have the National Conference of State Boards of Health—what a pity we haven't a national department of public health, with its head a member of the president's cabinet; also the National Association of Members of Committees on Medical Legislation. The medical officers of American institutions for idiotic and feeble-minded persons have a national organization; and organizations are not made merely for business or scientific purposes, but many are purely social or sentimental—for instance, the Rocky Mountain Medical Association. It would take page after page merely to name the State and county organizations, and city and district and tri-state and specialty societies; when it comes to "northeastern" and "southwestern" and the like, you can box the compass in the names of medical societies.

At some seasons of the year the doctor's mail is well sprinkled with invitations to pay his money and take his dinner with some medical club or clan, for the cultivation of one or another of the branches of the professional tree, or for good-fellowship. So that the statement which we made at starting, that ours is an organized profession, is very evidently true. Now with over a hundred thousand physicians in the United States, and with these men in the ranks or within reach of these numerous organiza-

tions, is there any good reason why there should not be concerted action upon questions affecting the domain of medicine?

Considering, in this connection, the influence wielded by physicians in every community and in every household and every social circle in the land, is there any reason why the profession should endure from year to year the sight of quackery rampant and ignorance triumphant? Is there any good reason why, if we want adequate legislation on the practice of medicine in every State, we should not have it? If we are really in earnest about wanting a national department of public health, why not have it? When it comes to such questions as that of anti-vivisection the profession might, if it would, bury the whole lot of nonsensical, morbid, sentimental rubbish under an irresistible avalanche of scientific facts and true and sane and broad-minded philanthropy.

The fact is the medical profession has never awakened to a sense of its own power, social, political. It talks, now and again, about reforms and complains continually of this or that evil which ought to be removed. But its objections and its efforts to right the wrong are as the querulous petulance of puny childhood to the might of gladiatorial manhood when compared with what might be done if the profession earnestly aroused itself to make an effort.

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#### OHIO PHARMACEUTICAL ASSOCIATION.

By far the best attended meeting in the history of this organization was held in the rooms of the Cleveland Chamber of Commerce June 8th to 11th, inclusive.

The first day's session was called to order by President Mayer, of Springfield, who after a few pleasing remarks introduced Mayor McKisson, who in turn delivered an appropriate address of welcome.

President Rosewater, of the Cleveland Pharmaceutical Association, followed Mr. McKisson with a welcome from the city association. These were responded to in good spirit by Prof. J. W. Beal, of Scio College, in behalf of the visitors, and Mr. Daniel Myers for the wholesale druggists. After the president's message and consider-

able routine business the meeting adjourned until the following day, when it got down to good working order.

The principal features of the subsequent days were the heated discussions on topics of vital importance to pharmacists and of interest to the physicians. Among these were the expressions of thanks to a manufacturer of a proprietary article for his brave and successful fight in exposing the corrupt methods and persecutions in vogue in the Ohio Dairy and Food Department under the late Commissioner F. B. McNeal and his staff, and which eventually ruined the latter politically. The tyrannical and corrupt processes used by him were very thoroughly shown up. In conclusion, Dr. F. B. McNeal and Dr. Sterritt were dismissed from the roll of membership in the society.

"Pharmaceutical Education and Pharmacy Colleges" were dwelt upon at some length, and it seemed to be the desire of some of the more prominent members to make the study of pharmacy and the subsequent acquirement of State certificates so severe, extended and costly, that after completion one would not care to take up the study of medicine. In other words, they expressed themselves as opposed to the use of pharmacy as a stepping stone to medicine.

Drug adulteration was discussed in a very laudable spirit, and the society passed the following resolutions:

WHEREAS, We believe it is not only dishonest, but criminal, to knowingly buy or sell adulterated goods that are used as medicinal agents upon which human life depends, therefore,

*Resolved*, That we pledge J. E. Blackburn, Ohio Food and Dairy Commissioner, our loyal and heartiest support in the faithful and honest performance of the requirements of this office.

*Resolved*, That our secretary be instructed to forward a copy of the foregoing to the Honorable Food Commissioner at Columbus.

A few remarks deploring the tablet evil among physicians were also offered.

The visiting, as well as the local druggists, were greatly pleased with the delightful weather which prevailed during the entire meeting, and a thorough enjoyment of the numerous entertainments was acknowledged by all. They consisted of trolley, carriage and boat rides, operas, receptions and banquets.

The Cleveland druggists' influence was so far-reach-

ing and secure in looking after the welfare of their guests, that the latter's funds were a useless accessory during their stay within, and even far removed from the city's jurisdiction.

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J. G. S.

### A CHILDREN'S HOSPITAL IN CLEVELAND.

From advance sheets of a book entitled "About Children," soon to be issued by the Medical Gazette Publishing Company, we quote a few paragraphs on the subject of children's hospitals. "The French early recognized the necessity and the propriety of hospital accommodations for children separate from those for adults, and separate wards and afterward distinct hospital were devoted to the care of sick children. The French were also first to attempt the education of imbecile children, away back in the seventeenth century. They were followed by the Germans in 1835 and the English in 1846. It was not until 1852 that the Hospital for Sick Children, Great Ormond street, London, was founded. This is called 'the mother of children's hospitals,' in England. It now has seven large wards, with nearly 200 beds, treats 1,500 or 1,600 in-patients annually and about 1,000 out-patients weekly. London also has the Northeastern Hospital for Children, treating 500 to 600 in-patients and about 14,000 out-patients annually, and the Evelina, with 66 cots, which takes care of about 1,000 in-patients and 6,000 out-patients each year. The East London Hospital for Children has 102 beds, and treats over 1,200 in-patients and more than 6,000 out-patients annually.

There is a large and beautiful hospital for children at Pendlebury, near Manchester, which is more favorably situated as to surroundings than any of the London hospitals, and does as much and as good work as any of them. Liverpool and other large cities of the British Isles have large hospitals for children or wards set apart for their special care, as have also Berlin, Vienna, Paris and other great centers of population in Germany and France.

This country was not far behind in the care of its children. In fact, in regard to the care and training of defective children, it was earlier to take a high standing than any of the countries of the old world excepting

France. The United States now presents acknowledged models to the whole world in its institutions for the education of the feeble-minded. Each State has its school for the imbecile, deaf-mute and blind. As for children's hospitals proper, they are to be found in many of our large cities, and some have three or four. The principal cities having special hospitals for children are Philadelphia, Pittsburg, Albany, Brooklyn, New York, Atlantic City, St. Louis, Detroit, Boston, Baltimore, Washington, San Francisco and Columbus. These vary in capacity all the way from a dozen or two cots up to 30, 40, 50, 60, 70 and even 100, as the San Francisco Hospital and Training School for nurses. The Washington Children's Hospital holds 128, the Baltimore Nursery and Children's Hospital, 200; the New York Nursery and Children's Hospital accommodates 450, and the Atlantic City Seashore Home for Invalid Children, 125. Some cities have a hospital for women and children, or maternity where the infants are also cared for. In this class are Chicago, New Orleans, Minneapolis, Syracuse, Cincinnati and Cleveland. This, of course, makes no note of general hospitals where a separate ward or wards are devoted to children, as this class is too numerous to mention."

By this it would appear that Cleveland, although less or more of a city for the past hundred years, and boasting a population of three-hundred-and-nobody-knows-how-many-thousands, many of whom are children — and with good prospects for more, in spite of the hard times — has been rather slow in providing hospital care for the children of the poor. True, the various general hospitals receive some children, but few are prepared to bestow the care which modern pediatrics demands, and none are supplied with adequate funds to receive all that need attention. The city supports a hospital of 150 beds for adults, and we know of no reason why the children have not received equal consideration at the hands of the authorities, except that they did not grumble and beg and demand it like their importunate elders.

Certainly it is equally worthy charity to care for needy childhood as for pauperized old age, while it is a great deal better management, from the economic point of view, to save the life or preserve the active usefulness

of the child whose possibilities are all in the future, than to spend money and effort on a decrepit wreck with no further hope of social usefulness. The economic view has also another phase, as any doctor with dispensary experience or practice among the poor classes can testify. Often the mother, perhaps a widow, is the breadwinner, and when one of her children is sick she must remain at home to nurse it, and the infirmary department must support the mother and, likely, other children too, because one is sick. Possibly, through absence, she loses her employment and becomes a permanent charge upon the city.

In short, it must be evident to all who have given the matter any thought that children have equal rights with adults to the city's hospital care; that it is neither proper nor expedient to mingle children and adults in the same hospital wards. Children require different environment and different medical and surgical care and different management from adults in order to obtain the best results. Neither is it good for most adult patients to have such children about them. Therefore it becomes a necessity to make special provision for them, and this the city of Cleveland has too long neglected to do. We are happy to state that under the present enlightened administration of the Department of Charities and Correction the work has been taken up, and the city is to have a hospital for children. We trust that all citizens whose hearts are in the right place will endorse the movement, both from motives of philanthropy and from civic pride.

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### **Periscope.**

#### SECONDARY ABDOMINAL PREGNANCY ATTAINING TO MATURITY AFTER TRAUMATIC RUPTURE OF THE UTERUS IN THE FOURTH MONTH. LAPAROTOMY. RECOVERY.

A case reported by Leopold in the *Archiv. für Gyn.*, Vol. 52, Part 2, is of much interest and merits a more detailed abstract than can be given here. The patient was 42 years old and had passed through eleven labors. The first eight deliveries were normal, but in the last three the placenta remained adherent. In the last for-



ceps were employed. Her periods did not return after the eleventh labor, but nevertheless in the spring of 1891 she again became pregnant. In July she had a severe fall, but apparently recovered completely. Three weeks later she felt for the first time the movements of the child, and during their continuance suffered great pain in the lower part of the abdomen. Three weeks before she came into the hospital the movements and the pains disappeared, but she suffered from chills, fever, headache and general malaise. There was no hemorrhage from the uterus. The symptoms and physical signs (given by Leopold in detail) justified the diagnosis of extra-uterine pregnancy, the mature embryo having been dead about three weeks. The abdomen having been opened, the child was found in a sac open on the left side only; it was bounded above by the transverse colon, on the right by the uterus, in front and on the left by the abdominal walls, and beneath by the pelvic outlet. The feet lay in the splenic region. The umbilical cord could be followed till it disappeared through a slit about 2 cm. long in the muscle of the uterus, showing that the placenta was in the uterine cavity. The uterus was accordingly removed. The patient was discharged in good condition six weeks after the operation.

The uterus, together with about 40 cm. of the umbilical cord, weighed 1,014 grammes and measured 18 x 12 x 6.75 cm. The whole cord was 49 cm. long. The child, a male, measured 50 cm. in length and weighed 2,720 grammes. The skin peeled off from the whole body and from portions of the head. The fetal membranes covered all the inner surface of the cavity of the uterus and took on a rounded form where they passed through the rent in the uterine wall, showing that this rent must have been originally circular. Examination of the specimens showed that the embryo was mature. It lay outside the uterus in a newly formed sac. The cord passed through the opening on the right side of the posterior wall of the uterus. The placenta took up the whole front wall and could be divided into a main part and an accessory portion. The wall of the uterus which was not occupied by the placenta was much thinner. The umbilical cord passed through a slit in the posterior wall of the uterus about 2 cm. long.

We have then: 1. A mature fetus which lies outside the uterus in a newly formed sac. 2. An opening in the posterior wall of the uterus through which the cord passes. 3. The whole placenta in the cavity of the uterus attached to the anterior wall. 4. A cicatrix 6 cm. long, 6 cm. broad and about 2 mm. thick in the wall of the uterus.

It is evident that the fetus had grown for some time normally in the uterus, and thence had been carried into the abdominal cavity, and there had been further nourished to maturity. Thus we have evidence of a uterine pregnancy which had later become an abdominal-cavity pregnancy. How did this wonderful passage of the fetus take place? We know of two factors which may have combined to bring this about: (1) The artificial removal of the previous placenta and (2) the heavy fall of the patient shortly before the middle of her pregnancy. As a consequence of numerous pregnancies the muscle of the uterus had lost its powers of resistance, and the structure of the uterine wall had also been weakened by artificial removal of the placenta in the last three labors. It is strange that rupture of the uterus could have taken place without causing a peritonitis and without affecting the life of the fetus. This is to be partly explained by the fact that the rupture in the wall lay close to the intestines and was partially closed by them. Again, at the stage of pregnancy when a fusion of the decidua reflexa with the decidua vera takes place—that is, about the fifth month, it is probable that the membranes covered all the walls of the uterus. Just about this time the woman fell, and it is possible that the sharp promontorium was thrust through the posterior wall, making a rent in it which passed only through the muscularis without injuring the membranes. Through this rent it is probable that a portion of the unruptured membranes passed, and was gradually followed by the fetus, the feet being the first to pass into the abdominal cavity, the head coming last and at a later period. It is also probable that it had exerted some pressure upon the edges of the rent, which prevented bleeding, and that a portion of the latter healed. If the membranes had ruptured when the uterus was torn, and the waters had escaped into the abdominal cavity, it is probable that, the pressure in the uterus being lowered, the latter would have contracted and the placenta would have become detached and perhaps passed into the abdominal cavity. But since we find that the placenta remained in its proper position and that the fetus went on to maturity, we must conclude not only that the rent in the uterus was small, but that the bag of waters was not ruptured and that the fetus passed gradually through the artificial opening. This view is supported by the fact that in the scar there was found, imbedded among new tissues and new blood vessels, fine hairs which must have come from the head of the child, which was the last portion to pass from the uterus.

That the umbilical cord was not completely compressed in the slit through which it passed is probably to

be explained by the ceaseless pulsation in the arteries and by the continual dragging upon the cord by the movements of the child. Both these factors together might account for the preservation of a sufficiently large open passage.

The child moved freely and formed its sac. At the end of the pregnancy the embryo died, but nature tried to effect the birth, as can be seen from the efforts of the placenta to free itself, evidenced by the overflow of blood into its tissue, the tumor-like prominence of its upper surface, and the significant thinness of the ruptured wall.

The wound of the uterus and still more the partial healing of the rupture, the uninterrupted life of the embryo to maturity, and the retention of the placenta in its normal position are so extraordinary that no one would have been justified in suspecting the real condition, more especially as all the appearances pointed to the existence of a primary extra-uterine pregnancy. H. R.

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### **Among Our Exchanges.**

There is growing conviction among advanced observers of nervous phenomena that the neuron is not an "absolutely fixed morphologic integer," but that the end tufts, at least, are moveable, extending or retracting, and thus making or breaking connections with contiguous nerve cells. If subsequent research shall confirm this as a fact, it promises a rational explanation of many hitherto obscure and inexplicable phenomena, and already constitutes a very good working hypothesis. The neurons of the motor area of the cortex, as has been demonstrated beyond reasonable doubt, present dendrites, branching protoplasmic extensions reaching outward toward the surface, and axons extending downward through the white matter of the brain, the internal capsule, the pons, the medulla, and the cord, terminating at last in a brush-like extremity, the end-tuft, by means of which the cortical cell is brought into connection with the motor nerve-cell of the spinal cord. We know absolutely that actual continuity of structure does not obtain between the end-tuft and the spinal cell, close proximity, or contact, being probably the normal relation. Let the end-tuft retract, and the contiguity is broken, the proximity lessened, and the passage of the nerve-current interrupted. Finding satisfactory reason for believing that the end-tuft is retractile, making or breaking its connections in response to stimuli, DR. F. X. DERCUM, of Philadelphia,<sup>1</sup> in a paper read before the Philadelphia Co. Medical Society,

<sup>1</sup>*Am. Medico-Surg. Bull.*, Apr. 25, '97.

shows very conclusively its value as a working hypothesis. In a case of hysteria, for instance, where the arm is paralyzed, we have but to conceive the retraction of the processes of the neurons of the arm-center of the cortex as a result of some physical or psychic shock, and we can realize how the connection between muscle and cortex is broken, and how, either spontaneously or as a result of suggestion, either with or without hypnotism, the end-tufts may resume their normal relation and the paralysis disappear as suddenly as it came. A like explanation obtains in hysterical anesthesia. Sleep—which for want of a better explanation we have attributed to anemia of the brain, in spite of the fact that true and undoubted anemia of the brain, such as follows great loss of blood or accompanies marked general anemia, is attended by wakefulness—sleep now becomes explicable. The neurons, during consciousness, being functionally active, are protracting their processes, general contact of neural processes being synonymous with consciousness. The nerve-cells exhausted by fatigue, their volume and cell contents diminished, retract their processes, disconnect themselves generally, cease to functionate, and unconsciousness and sleep must of course result. Normal psychic phenomena, perception, memory, abnormal psychic phenomena, hypnotism, hallucination, illusion, delusion, are all equally explicable on this hypothesis. *Se non è vero è ben trovato*. If it isn't so it ought to be. Much as we have discovered about the natural history of the *bacillus tuberculosis*, the fact remains that the essentials of successful treatment are still what they were of old, "food and fresh air," drugs playing a very subordinate part, except as they promote digestion, or encourage the elimination of toxins. This fact is emphasized by DR. SAMUEL A. FISK, of Denver, Colo.,<sup>2</sup> who avers that too close attention to the bacillus or to the local lesions, or too much faith in so-called specifics may lead one to overlook the furred tongue, the constipation, the scanty urine, which aggravate the fever, and which are amenable to simple treatment, calomel and potash being his favorites. He has noticed, also, that patients subject to hemorrhage were apt to be affected with constipation and with scanty and high sp. gr. urine, and that in such cases catharsis and diuresis were followed by marked results for the better. He has not been favorably impressed with creosote. In the patients coming under his own observation the most common result has been to upset digestion. In such cases he stops the creosote and gives calomel and potash. There is nothing new in all this, but the temptation to "prove all things" on our patients is only too apt to be

<sup>2</sup>*Jour. Pract. Med.*, July, '97.

yielded to—the incontrovertible evidence of the eminent foreign clinician in the last circular booming the latest infallible specific is so seductive—and we now and then forget to “hold fast to that which is good.” Since 1872 DR. O. HASSE, of Nordhausen, Germany, has been quietly testing the therapeutic effect of injections of *alcohol* in *carcinomatous growths*, publishing his summarized results last year.<sup>3</sup> He reasoned as DR. KARL SCHWALBE did as a rational basis for using alcohol in goitre, angioma and other growths, that if alcoholism will cause the formation of new connective tissue in the liver with atrophy of the parenchyma, lymphatics and blood vessels, the direct injection of alcohol into tumors ought to do the same. HASSE reasoned further that the girdling of a tumor with a zone of alcohol would result in new formation of connective tissue, which would construct or obliterate afferent and efferent vessels causing atrophy of the tumor. DR. EDWIN J. KUH,<sup>4</sup> of Chicago, reports a case of cancer of the naso-pharynx where this method seems to have been followed by a cure. There was no doubt as to diagnosis, for the growth was removed and proved to be epithelial cancer. It returned promptly. Erysipelas-prodigiosus toxins were injected unfiltered, those finally used being obtained from DR. COLEY (Mr. Buxton), of New York. What has so frequently happened in the hands of others happened here. The usual febrile reaction followed after each injection and after ten treatments fully two-thirds of the growth had disappeared. Then there was no further decrease, but in a few days, and in spite of the continued injections, the growth increased steadily. A piece of the tumor excised for examination showed the same malignant characteristics as at first. Toxins were discontinued and alcohol injections were begun, beginning with three minims of absolute alcohol (more could not be tolerated on account of the pain) and increasing to thirty minims. A reduction in size began after the seventh injection, and after the eleventh but few remnants of the growth remained. After a dozen more injections the needle would not penetrate into tissues capable of retaining the alcohol. Four months after beginning the alcohol treatment the pharynx showed no trace of the growth either on inspection or palpation. If further trial shall show that in the general run of cases the alcohol treatment for cancer is only another will o' the wisp, we have the satisfaction that the treatment is likely to do no harm, at least. Some time ago we called attention to the use of *picric acid* in the French hospitals as a remedy for *burns* and *scalds*. The drug is non-toxic, locally anesthetic, antiseptic, astringent,

<sup>3</sup> *Therapeut. Wochenschrift*, No. 41, 1896. <sup>4</sup> *Med. Rec.*, Apr. 17, '97.

and coagulates albumin. It can be used in the same manner as carron oil, and DR. EDGAR THOMPSON, of St. Louis,<sup>5</sup> who has been using it for a year, reports excellent results. The advantages he finds are that it seems to deaden pain and limits the tendency to supuration by coagulating the albuminous exudations, so that healing can take place under a scab consisting of epithelial cells hardened by picric acid. There remains a smooth and supple cicatrix as much superior to the ordinary scar after a burn as our present surgical scar is superior to the scar left after a wound has granulated. Two drachms of picric acid saturate a quart of water. A better solution and stronger is made by adding together fifteen parts of picric acid, eighty parts of alcohol and one thousand parts of water. The disadvantage of the method is that the acid not only colors the skin and urine of the patient yellow, but also the hands of the surgeon, and his clothes, too, if he be careless.

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### New Books.

PROCEEDINGS OF THE SIXTH ANNUAL MEETING OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES. Held at Philadelphia, Pa., May 12, 13 and 14, 1896. Cleveland: The Medical Gazette Publishing Co., 1896.

A perusal of this volume will show the reader that military surgery and the duties of the military surgeon are something more than the treatment of the wounds of the battle-field and the illness of march and camp. Of the excellent papers which, together with the routine business and discussions, comprise the volume, about half are devoted to topics bearing upon organization and methods of work of the hospital corps, and sanitary organization. Among these is one on "The Annual Encampment and What it Teaches to the Surgeon of the National Guard," by Captain J. J. Erwin, of this city, who was treasurer of the association for the past year, and whose services were demanded at the recent meeting of the association for another year in the same capacity. Another, "Methods of Instruction in First Aid," is by Captain James E. Pilcher, U. S. A., stationed at Columbus, who is well known as a writer on this subject. Several of the papers are valuable scientific studies on special topics. Lieut. Henry G. Beyer, U. S. N., reports a series of experiments on the effects of the shower bath and of swimming under various conditions of temperature, previous exercise, and time, with the pulse tracings taken to show the effect in each case. Lieut. Thomas C. Craig,

<sup>5</sup> *Med. Review*, Feb. 20, '97.

U. S. N., investigated the vitality of the cholera spirillum in contact with the cut surface of various fruits. His results show that the juices of the strawberry, pineapple, orange and lemon proved destructive to the spirillum in less than twenty-four hours. The peach, apricot, banana and apple allowed growth for from one day for the peach to ten days for the apple. The watermelon and cantaloupe proved excellent culture mediums, as the bacteria continued to flourish until the fruit became thoroughly disintegrated, which occurred after a period of two or more weeks. Capt. Louis A. LaGarde, U. S. A., contributes "Notes on an Emergency Ration," which record an experiment none the less scientific because it was a practical test. As a member of a board convened to recommend an emergency ration, he had recommended one which he was afterward ordered to test in the field. The test resulted rather disastrously, and Dr. LaGarde concludes that the trouble was probably due to the formation of ptomaines in the bean-soup tablet, which was one constituent of the ration. A number of very practical suggestions are made in some of the papers, as that for the use of green or blue canvas for tents instead of white, by Captain Myles Standish, of Boston, and the use of asbestos surgical dressings, by Maj. D. M. Appel, U. S. A. Space will not allow particular mention of other papers, which are of especial interest to military surgeons, although containing much to repay a reading by medical men who wear no straps. That the association is flourishing is evidenced by the handsome volume which embodies its transactions, as well as the roster of nearly four hundred active members.

F. K. S.

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THE DISEASES OF CHILDREN'S TEETH, Their Prevention and Treatment. A Manual for Medical Practitioners and Students. By R. Denison Pedley, M. R. C. S., L. D. S. Eng., F. R. C. S. Edin. Dental Surgeon to the Evelina Hospital for Sick Children, Southwark, London. With numerous Illustrations. Published in London by J. P. Segg & Co., 289 and 291 Regent street, W. In America by the S. S. White Dental Mfg. Co., Chestnut street, Philadelphia. 268 pages. Price, \$2.65, net.

While originally a part of surgery, dentistry has become so specialized as practically to have separated the dentist from the medical profession. We have often thought that this separation had gone too far, and certain it is that if the relationship which exists by nature between the science and art of surgery and the science and art of dentistry, and between the practitioners of both, were more nearly felt and more clearly recognized, it would be better for practitioners in both professions and for

their patients. Too many dentists know too little of general physiology and pathology, and too many medical men know too little and pay too little attention to dental physiology and pathology. (Upon ethical questions also the dental profession has become too far separated from the parent stock, but that is an important question aside from the one in hand). Especially is it true that the teeth should be understood and should be observed and wisely attended to in the formative period of childhood, when so much of the future depends upon what is done in the present. In childhood the digestive tract has many disturbances, which of course affect nutrition and growth and development. It should be recognized how important a part the teeth are of that digestive tract. The influence of local irritation upon the nervous system and its effects through a wide range of reflexes must be considered in a study of the mouth and teeth. The mouth as an incubator of bacteria claims attention—as a source of infection not only local and involving adjacent structures, but of more remote or general infection, and so comes up the question of the relation between dental and other diseases. That relationship established, the necessity for hygiene of the mouth in the home, in the school and in the hospital ward is manifest.

The author of "The Diseases of Children's Teeth" has recognized the importance of his subject and out of his ample knowledge and practical experience has given us a valuable book. It should be read by every doctor and every dentist.

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NEW EVIDENCE THAT THE RECTAL VALVE IS AN ANATOMICAL FACT. Thomas Charles Martin, M. D., Cleveland, O. Louisville: John P. Morton & Co., 1896.

The author quotes the descriptions of the rectum and its valves, as given by various distinguished writers, from Houston (1830) and Chadwick (1878) down to Kelsey (1893), of Mathews, Gant and others, noting exceptions to their manner of investigating the subject or to some of their conclusions upon it. The new evidence which he adduces supporting his belief that the rectal valve is an anatomical fact is presented not only in text description of appearances in the living subject, but in twenty beautiful plates engraved from photographs taken from specimens of his own preparation. The specimens were of the parafin-filled gut, which after a week's immersion in alcohol were cut open in various directions and photographed. Sections for the microscope were made of a number of valves, showing under the instrument a band of fibrinous tissue occupying the free border and underlying the en-



tire surface of the valve and characterizing it. The muscular tissue does not occupy the free border nor characterize the valve. The muscular bundles are so arranged that when the muscular relaxation is greatest, the valve is most prominent. The arrangement of blood vessels also appears to be a special provision for the nutrition of the structure. So that the conclusion is that this obstruction, the so-called "semilunar valves, plica transversalis, sphincter ani tertius, superior sphincter and detrusor fecium muscles are one and the same thing, and that thing is essentially a valve, which is most prominent when the gut is most distended."

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**ELEMENTARY BANDAGING AND SURGICAL DRESSING**, with Directions Concerning the Immediate Treatment of Cases of Emergency. For the Use of Dressers and Nurses. By Walter Pye, F. R. C. S.; late Surgeon to St. Mary's Hospital. Revised and in part rewritten by G. Bellingham Smith, F. R. C. S., Surgical Registrar Guy's Hospital. Seventh edition. Philadelphia: W. B. Saunders, 928 Walnut street, 1897. Cleveland agent, Galbraith, New England Bldg. 75 cents.

This 32-mo. of 218 pages is essentially a reissue of such portions of "Pye's Surgical Handicraft," which appeared some years ago, as pertain to the subject of its title. It is thoroughly practical in its teaching and will be found full of good points from cover to cover and extremely convenient as a manual.

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**WARNER'S POCKET MEDICAL DICTIONARY OF TO-DAY.** Comprising pronunciation and definition of 10,000 essential words and terms used in medicine and associated sciences. By William R. Warner. Wm. R. Warner & Co., Philadelphia, 1897. Price, 75 cents.

This little book contains 304 pages of dictionary and 34 pages of advertisements for the druggists who publish it. It is of pocket size and intended especially for classroom service in the hands of students.

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#### PAMPHLETS RECEIVED.

**TERATOGENESIS: An Inquiry into the Causes of Monstrosities.** History of the Theories of the Past. By J. W. Ballantyne, M. D., F. R. C. P. E., F. R. S. E. Edinburgh: Oliver & Boyd, Tweeddale Court, 1897.

**EYESIGHT VERSUS HEARING, in the Primary Grades of the Public Schools.** By Albert Rufus Baker, M. D., Cleveland, Prof. Dis. Eye, Ear and Throat, in the Cleveland College of Physicians and Surgeons, etc., etc. From *Cleveland Journal of Medicine*.

**THE TECHNIQUE OF ABDOMINAL HYSTERECTOMY.** Eight Intestinal Perforations from Pistol Bullet: Operation: Recovery. Four Months' Hospital Report. By J. F. Baldwin, A. M., M. D., Professor of Surgical Gynecology, Ohio Medical University, etc., etc.

ON CONGENITAL GASTRIC SPASM. (Congenital Hypertrophy and Stenosis of the Pylorus.) By John Thomson, M. D., F. R. C. P., Edinburgh. Extra Physician to the Royal Hospital for Sick Children, Edinburgh.

AN APPARENT EXCEPTION TO COLLES' LAW. By C. Travis Drennen, M. D., Hot Springs, Ark.

TWENTY-FOURTH ANNUAL REPORT OF THE HEALTH DIVISION of the Department of Police of the City of Cleveland, O. For the year ending December 31, 1896. J. L. Hess, M. D., Health Officer.

QUANTITATIVE ESTIMATION OF URINE. New System of Rapid Analysis for Medical Men and Pharmacists. Acidity, Urea, Sugar, Total Urates, Albumen and Colour. By J. Barker Smith, L. R. C. P., London. Author of the "Pharmaceutical Guide," etc. Ballière, Tindall & Cox, 20-21 King William St., Strand, W. C. Price, One Shilling.

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## **Society Reports.**

### **CLEVELAND MEDICAL SOCIETY.**

#### *Quarterly Meeting, June 25, 1897.*

The eleventh quarterly meeting of the Cleveland Medical Society was held in the rooms of the Chamber of Commerce, Friday evening, June 25th, and was addressed by Dr. T. M. Rotch, Professor of Pediatrics in Harvard Medical College, Boston, Mass.

PROFESSOR ROTCH, who for the past few years has been earnestly engaged in the development of a system for milk modification as applied to the feeding of infants, gave us a most interesting and instructive lecture upon the subject.

Capitalists have been interested in the scheme as a business venture, and farms especially devoted to the purpose, together with laboratories supplied with special fixtures, have been brought into the service. Such farms and laboratories are now in operation for supplying several of our largest cities, including Boston, New York, Philadelphia and Chicago, and active measures are already being taken to organize a like establishment for our own city.

Professor Rotch called our attention to the fact that the greatest benefits were to be derived from proper feeding in the treatment of many infantile diseases, and stated that medicines for infants are being more and more relegated to the past. Even mother's milk is not suited to the condition of the infant at all times. Children prematurely born, for example, require very low percentages of the food elements contained in milk, and the breast is not

able to modify the milk for the production of such percentages.

The object of the laboratories which have been established is to separate cow's milk into cream and its other component parts and to re-combine these elements in such proportions as may be prescribed by the physician to meet the indications for the feeding of any special infant.

The farm, which is an important factor in connection with the milk laboratory, is selected with great care so that the cows may receive nothing but the best of food. Different qualities of grass have been found to vary the quality of milk produced, and under the best of conditions the relative proportion of fats, sugar and proteids in the milk are found to vary greatly from day to day. The cows are carefully watched by herdsmen and are not allowed to eat certain articles of food. The cows, as well as the milkmen, are selected with care, as to their condition of health, and both are required to be cleanly in their habits. The udders of the cows are thoroughly washed before milking, and the milkmen are dressed like surgeons ready for an aseptic operation, great care being taken to obtain the milk as nearly as possible in a sterile condition.

The milk is taken directly to the laboratory, where it is put into a separator, which, by its 6,800 revolutions per minute, accomplishes two important results. First, by centrifugal force it separates from the cream and separated milk any dirt or foreign matter present, some of which gets into every milk, even with the extreme precautions carried out at the laboratory farm, and thus provides at once a practically clean milk, a most important result from a bacteriologic point of view, for it thus becomes a less favorable culture ground for the multiplication of the bacteria which happen to remain in the milk. Then, again, the resulting cream has an almost stable percentage of fat, the importance of this being in its stability and not in its special percentage. A cream is therefore secured which is perfectly fresh, instead of one obtained by allowing the milk to stand, which would be many hours older than the fresh milk used in modifying. If sterilization is deemed necessary the physician may prescribe the temperature to which the milk is to be heated. It has been learned, however, that a temperature of 171 degrees F. causes coagulation of the proteids, and that a temperature of 167 degrees F. is sufficient for purposes of general sterilization, this temperature being capable of destroying the Klebs-Loeffler bacillus, tubercle bacilli, and other noxious bacteria.

In prescribing milk, the physician indicates the quantities required in percentages, and for reference a copy of one of the prescription blanks in use is here given:

R	PER CENT.		REMARKS.	
Fat, . . . . .			Number of feedings.....	
Milk-Sugar, . . . . .			Amount at each feeding,.....	
Albuminoids, . . . . .			Infant's age,.....	
Mineral Matter, . . . . .			Infant's weight, .....	
Total Solids, . . . . .			Alkalinity,.....	%
Water, . . . . .			Heat at.....	°F.
	100.00			

Ordered for,.....

Date, .....	Signature, .....
.....189	.....

The clerk of the laboratory changes the percentages into ounces, and the milk modifier fills the prescription accordingly, so that the milk prescribed contains the proper percentage of fat, sugar, and proteids, and a close imitation of mother's milk is the result. Most milk requires about five per cent. of lime-water to render it sufficiently alkaline. It is said that cows fed on the blue grass of Kentucky give almost an alkaline milk, and on leaving this city Professor Rotch intended to visit the blue grass region to investigate this important fact.

In speaking of the character and quality of milk, Dr. Rotch said: "A large part of the question depends upon obtaining a proper material with which to work in our milk modification. Milk which is to be used for this purpose must be cared for and guarded with the utmost vigilance. When we use our model, human milk, and speak of one of its great virtues as being its freedom from bacteria, we acknowledge that it is not a sterilized milk which we are using, but a sterile milk. This we must consider in our use of cow's milk, for there is no doubt that a milk which has stood for five or six hours and is then sterilized does not correspond to sterile milk which has come freshly from the udder. I have had some very interesting experiments made in connection with this part of the food problem. These experiments were made on the milk of cows that were first carefully cleansed before the milking, and where the milk was drawn by hands and arms which were first thoroughly sterilized. As a result of these experiments it was found that the milk which was drawn in the early part of the milking was full of micro-organisms; that the middle milk contained a much less number, and that the last part of the milking contained few, if any, of these micro-organisms. It is now

supposed, and fairly well proven, that these micro-organisms enter the udder from without, and between the milkings multiply rapidly; and that when the cow is milked these organisms are washed away in large numbers, so that after the fore-milk has been drawn very few micro-organisms are left to be washed away, and the remaining portion of the milk drawn is practically sterile.

"This discovery is of great importance when we wish to deal with an unusually delicate digestion, for in these cases if we use the mixed milk from the entire milking, we are dealing with a wholly different fluid from that which is drawn in the latter part of the milking, as in the latter case we have a sterile medium to use, while in the former case it has been infected by bacteria. It has also been shown, as spoken of by Moore, that the bacteria which become localized in the milk ducts, and which are necessarily carried into the milk, are for the greater part rapidly acid-producing organisms—that is, that they ferment milk-sugar, forming acids, and that they do not produce gas. The bacillus coli communis and other gas-producing bacteria sometimes found in market milk are presumably, therefore, the results of external contamination. The fact that sugar-fermenting bacteria are ordinarily present in freshly drawn milk, not only warns us that if this milk is to be used it should be sterilized at once, but also suggests to us that it is the latter part of the milking which under all circumstances is best adapted for infant feeding. A large number of the micro-organisms, however, which are found in milk gain access to the milk from external sources, and the number of bacteria present depends largely upon the amount of dirt and filth which finds its way into the milk after it is drawn from the udder. Among these bacteria is a great variety of fecal and purely saprophytic organisms, some of which are capable of producing fermentation, and the pathogenic micro-organisms which produce various diseases, such as tuberculosis, scarlet fever, and diphtheria. Another source of danger in the milk which we use for modification is the possibility of the cows becoming infected by the hands of the milkers. Interesting observations have been made in this direction by a number of investigators, and the various forms of infectious mastitis will, in all probability, in the future be found to play a rôle of considerable importance in gastro-enteric diseases. Of especial interest in this connection are the observations of Stokes and Clement on a herd of seventy cows which were infected by the hands of a strange milker, who had had one of his fingers infected when working on a large dairy farm in York, Pennsylvania. A complete autopsy made on one of these cows showed that there was no general

infection, but that the septic process was limited to a somewhat purulent inflammation of the milk ducts. Dr. Stokes also traced the source of an epidemic of diarrhea which broke out in a school of seventy girls, to milk from cows infected with this local sepsis.

"A safe milk, therefore, is hard to obtain from the farm or dairy. It is especially hard to obtain in the private stable. A safe milk is a matter of the producer's conscientious work. The veterinarian must be constant in attendance to guard against the dangers arising from such a variety of micro-organisms. Of these micro-organisms the rôle which the streptococcus pyogenes plays in infant pathology is very uncertain and its virulence varies in any given instance. Yet it is beginning to be believed that this so-called non-pathogenic coccus becomes highly pathogenic in certain company, and that milk containing these cocci, which are quite commonly present in average dairy milk, becomes at times especially dangerous to the consumer, and that it is this organism which is closely related with certain severe diarrheas in infancy."

In regard to the adaptation of the principles of modification to individual cases, he said:

"I can give you no exact rules as to what percentages of the fat, sugar, and proteids, or what combination of these three elements should be made in the special case. Each case must be studied in itself, and until we have a much wider knowledge than we at present possess, our prescriptions must be largely experimental. A safe rule to follow, however, is to begin with low percentages, and then not only to increase the percentage of each of the elements when the infant is found to digest them but is not increasing in weight, but also if it is neither digesting nor increasing in weight to make different combinations of these three elements. Thus, if 5 per cent. of fat, 7 per cent. of sugar, and 2 per cent. of proteids is found not to be digested by the infant, 3.5 of fat, 6 of sugar, and 1 of proteids may be given, and so on through numerous changes."

The modified milk when sent out to the consumers is put up in bottles to which nipples may be attached; each bottle contains the quantity prescribed for a single feeding, and a basket contains the number of bottles prescribed for 24 hours, or a number equal to the number of feedings desired. The cost of milk so prepared is about 50 cents per day, but, notwithstanding this fact, large numbers of poor children are fed upon it in Boston, and the expense is paid by charitable contributions made for the purpose.

The paper was discussed by Doctors Tuckerman, Wirt, O. B. Campbell, S. W. Kelley, Powell, Spenser and Corlett.  
C. W. S.

## Correspondence.

CLEVELAND, O., June, 1897.

*Dear Dr. Kelley:*

If you think that others may derive benefit from my painful experience, you might publish the following simple rule for facilitating the operation of intubation.

It is an observation which perhaps others have made that in the description of operations and procedures, just those so-called little points are omitted or neglected on which the success of the operation, or, at least, its smooth and perfect execution, depends. Now, when describing intubation, it would hardly seem necessary to discuss those points at length which are as a matter of fact communicated. Common sense would not allow us to do otherwise. But one point which is of much importance is passed over much too quickly, namely this, that it is important to have the head held forward. The directions for this are given, but I have not seen any emphasis put upon them. For a long time it was a mystery to me why there was such a difference in the difficulty of inserting the tube, and I laid it to the difference in the configuration of the structures coming into play here. Finally, however, it became clear to me that the important thing would be to have the head held well forward—in fact, so much forward that one will perform the operation on one's knee. There is the greatest difference in facility of execution between performing the operation in a standing position and where one is resting on the knee—at least in my own experience. Very skilful men, perhaps, have no trouble in performing this operation. I have to confess that I do not look upon it as such an easy one, and as there may be others in the same predicament I give to these the brotherly advice: *Operate while on your knee.*

One can readily understand why the conditions are so much more favorable. The vertebral column rather forms a concavity anteriorly when the head is held forward and almost downward, so that the larynx is brought thus backward and comes within more easy reach; and I think the direction in which we can now push the instrument will be easier to find than when standing.

C. SIHLER.

## **Notes and Comments.**

**The Next Quarterly Meeting of the Cleveland Medical Society** will be held on September 24th. Dr. C. A. Herter, of New York, will deliver a lecture on "Autoinfection as a Cause of Disease."

**Dr. C. Sihler's Method of Preparing Muscle Spindles.** In a recent paper read before the London Neurological Society by Dr. Patten, a member of that body, and discussed by Drs. Horsley, Sherrington and others, the essayist described his investigations of the spindles in a half dozen different diseases. He regards Dr. Sihler's method of working up the spindles, as described in the *GAZETTE*, as the key to the study of these organs.

**Dr. M. Catherine Goodwin**, Class of '97, Cleveland College of Physicians and Surgeons, is very pleasantly located at Warren, Ohio, having an office suite on Market street, with an outlook over park and river.

**Dr. Christian Sihler** has gone to Heidelberg for work. His practice is in charge of Dr. Charles C. Stuart.

**Drs. Wm. and Walter Lincoln** have removed their offices to the Osborn.

**Dr. Harry McGarvey**, of the Class of '97, W. R. U. Medical College, and Miss Kate E. Miller, of Kinsman, Ohio, were married June 9, 1897. Dr. and Mrs. McGarvey will make their home at Carlton, this State.

**Dr. Frank A. Handrick**, of Pearl and Detroit Sts., has been appointed District Physician for the 9th District, vice Dr. D. A. Hausman, resigned.

**Dr. J. C. Holloway**, of Vincennes, Ind., was recently married to Miss Arabella Zink, of Ligonier, Ind.

**Teapots** are used only among the poor in China. The wealthy classes place the tea leaves in the cup and fill with hot water.

**Several Physicians of New York** have been reported to have given up practice and accepted positions as motor-men and conductors.

**Dr. Fred. C. Herrick** is studying in Philadelphia.

**Dr. Thomas Chas. Martin**, Class of '97, Cleveland College of Physicians and Surgeons, and Mrs. Margaret Elizabeth Butterfield, of Washington, D. C., were united in marriage on June 8, 1897. Dr. and Mrs. Martin are abroad for the summer. On their return, in the early



autumn, they will reside at 1077 Prospect street, corner of Kennard.

**Dr. R. B. Taylor**, of Arcadia, O., evidently stands by the motto, "In time of peace prepare for war." While out one morning recently, at three o'clock, he was accosted by would-be robbers and returned the salutation with a couple of revolver shots, hitting one of the men.

**Dr. Edward F. Cushing** was married on June 9th to Miss Katherine Melaine, daughter of Mr. E. H. Harvey, of this city. Dr. and Mrs. Cushing will spend the summer in Europe.

**Dr. R. Percy Buchtel**, of Akron, was married on June 10th to Miss Emma Bauman, also of Akron.

**Dr. H. L. Spence** lectured on Hypnotism, in June, before the Men's Club of the East Madison Ave. Congregational Church.

**Dr. Wm. H. Nevison** has gone to Europe for rest and recreation. He expects to spend much of his time in southern France.

**Dr. J. R. Jamieson**, of Apple Creek, O., visited the city recently.

**So-called Rabies** is becoming alarmingly frequent lately among the mongrel curs belonging to nobody, and some efficient steps should be taken at once to put a stop to this menace.

**Since the New Medical Law** went into effect, an old gentleman on St. Clair street, who manufactures and sells compounds guaranteed to cure any known disease, has changed his form of guarantee so as to read: "I promise to nurse," etc. The use of the word "nurse" is rather mystifying, but his patrons may have the required faith.

**Dr. George W. Crile** has received the Cartwright Prize for research work on the subject of shock and its prevention by cocain and eucain, locally and to nerve trunks. This has been followed by the congratulations of his many friends, and a congratulatory vote from the Cleveland Medical Society, which must have been equally gratifying to the doctor.

**Dr. A. P. Ohlmacher** has accepted the position of Director of the Pathological Laboratory of the Ohio Hospital for Epileptics at Gallipolis. The work will include all kinds of pathological and bacteriological laboratory investigation, with special reference to the study of epilepsy. It is the hope of Dr. H. C. Rutter, manager

of the hospital, that the laboratory will become the center for the establishment of a State pathological institute for Ohio, on lines similar to those of the magnificent institute which the State of New York has founded. Dr. Ohlmacher retains his position as Professor of Pathology and Bacteriology in the Cleveland College of Physicians and Surgeons, having competent assistants who will attend to the routine class-room work of the college under his direction. While we congratulate Dr. Ohlmacher upon his new honors and emoluments, we are not surprised thereat, but recognize in them the natural result of his ability and energy and the needs of the times. The State is equally to be congratulated upon its selection for laboratory director in its institution for epileptics. We hope the wisdom of Dr. Rutter's plans for a pathological institute will be recognized and his ideal fully realized.

**Dr. W. A. Phillips** has removed from Reno, Nevada, where he practised since graduating at Western Reserve, in 1888, to Pacific Grove, one of the beautiful health resorts of California, about a hundred miles south of San Francisco.

**Dr. O. S. Trimmer**, of Cleveland Medical College, class of '64, is also located at Pacific Grove, Cal., and the two former students of Cleveland, Dr. Trimmer and Dr. Phillips, before mentioned, have entered into partnership on the far Pacific coast.

**Dr. T. M. Rotch's Lecture**, delivered before the Cleveland Medical Society at its quarterly meeting, on June 25th, was a masterly presentation of the subject of "The Principles of Milk Modification in Health and Disease." We trust that many physicians hitherto adhering to antiquated and bungling methods of artificial feeding, will be led to change their practice to the scientific plan which Dr. Rotch has laid down. While milk modification in the home can be successfully employed—as we are willing to testify—the thorough and accurate application of all its principles can only be carried out with a model dairy and a milk laboratory at command. These Cleveland is likely to have in the near future. Steps have already been taken in a practical and business-like way to establish a system of this kind in our city, and we hope our physicians will not be found behind the times upon the subject. A good report of Dr. Rotch's lecture will be found under "Society Reports."

**Mississippi Valley Medical Association.** The Executive committee of this association met recently at Louisville, in conjunction with the local committee of arrangements,

the following being present: Drs. Stucky, Grant, Mathews, Love, Holloway and Reynolds. It was determined to make the coming meeting at Louisville, Oct. 5th, 6th, 7th and 8th, the largest and best in the history of the association, and everything points to a fulfillment of this endeavor. The railroads will make a round-trip rate of one and a third fare, or possibly one fare. The address on "Surgery" will be delivered by Dr. J. B. Murphy, Chicago; the address on "Medicine", by Dr. John V. Shoemaker, Philadelphia. Titles of papers should be sent to Dr. H. W. Loeb, secretary, St. Louis, Mo.

**A Complete Hospital Plant.** An example of the diversity of modern applications of electricity under one public roof is afforded by the plant installed recently in the Central Indiana Hospital for the Insane. Apparatus of 450 horse-power furnishes current for light, heat and power. There are no fewer than 3,000 incandescent lights and 20 arcs, but the most interesting part of the plant lies in the laundry. A 25 horse-power motor runs twelve washing machines, two sterilizing machines, four centrifugal extractors, two starching machines, one tumbling machine, a large mangle, skirt ironers, and other appliances. The current is led by flexible standards and wires to tables at which twelve operators work with electric sad-irons. The ironing boards are arranged radially, so that the women are free to move around their work without in any wise disturbing the wires or interfering with each other. As each of the sad-irons is constantly kept in an even heat by the current, there is no delay in changing. Only half as many operators are found necessary as when the irons were heated in the old laundry by natural gas.—*The Electrical Journal*.

**Study of American Medicinal Flora.** The sub-commission of the Pan-American Medical Congress appointed to study the medicinal plants of the United States, has entered into an association with the Smithsonian Institution for that purpose. Franks which will carry specimens, when of suitable size, together with descriptions and notes, free of postage through the mails, will be sent on application to S. P. Langley, Secretary, Smithsonian Institution, Washington, D. C. For detailed instructions relative to the collection of the medicinal plants and the principal points upon which they are to be studied, address H. H. Rusby, M. D., Chairman of the General Commission, New York College of Pharmacy; or Valery Havard, M. D., Chairman of the Sub-Commission, Fort Slocum, David's Island, N. Y.

**Physicians' and Lawyers' Fees.** An interesting case is on trial at Pittsburgh, Pa. By the testimony of a physician a plaintiff secured \$6,000 damages for injury received in an accident. The lawyers took \$3,000. The physician got nothing, and is now suing the lawyers for his fee, and each of the legal lights insists that the doctor's fee should come out of the other fellow's share.

A similar instance, barring the suit, occurred in this city. Not long ago a physician made affidavit to the serious injuries received by the plaintiff, and when summoned to court spent a day in answering useful and useless questions of the opposing lawyers for the munificent fee of \$1.60, expert testimony not being allowed.

The finding in the case was decided by the doctor's testimony, and verdict with \$6,000 damages given. Of this the lawyers took \$3,000, and the modest claim of the doctor for \$50 is yet unpaid.

There is too little consideration shown the medical profession by the legal. Should we desire their advice a retainer is demanded, while they feel entirely at liberty to take our time, utilize our records, and profit by our experience and advice with no thought of payment. It is for the good of our patient, you know; and we have knowledge of a case where a lawyer charged in his bill \$25 for time spent in consulting a physician relative to the case, and yet declined to pay the doctor an office fee of five dollars.

Some one will arise in the rank of the medical profession who will dare to say: "Five dollars, please, if you desire my advice in this case, and fifty dollars if I am called to court.—*Atlantic Medical Weekly*."

**Apropos of Fees,** we find occasional instances where the medical expert demands, and secures, something like an adequate remuneration for services rendered, as appears in a discussion of the subject at a meeting of the New York Board of Estimate and Apportionment, reported in the *New York Times*, as follows:

Mr. Olcott brought up the subject of contingent expenses. "In the Barberi trial," he said, "the cost of one expert witness is \$10,000. I am shocked at this."

"You will get used to it," exclaimed the controller, who added: "In the Fleming trial one witness, Professor Vaughan, of Ann Arbor university, received \$300 a day and expenses."

"That is enormous," said the district attorney.

"I have fought without avail against these charges," said the controller, "but if they are contested in the courts, other doctors will come forward and testify that the amounts are reasonable. Professor Vaughan arranged

his terms in advance and would not come for less. The trial of Dr. Meyer cost \$62,000 for expert testimony." The controller suggested that a bill should be drafted providing for the appointment of three medical and chemical experts for the district attorney's assistance. The suggestion was favorably received by the board.

"This will save the city \$100,000 a year, and we can get first-class experts at \$10,000 a year," he added.

**New Books Coming.** Mr. Saunders announces the following for early publication: "An American Text-Book of Genito-Urinary and Skin Diseases," edited by L. Bolton Bangs, M. D., and William A. Hardaway, M. D.; "An American Text-Book of Diseases of the Eye, Ear, Nose and Throat," edited by G. E. De Schweinitz, M. D., and B. Alexander Randall, M. D.; "Surgical Diagnosis and Treatment," by J. W. Macdonald, M. D.; "A Text-Book of the Theory and Practice of Medicine," by James A. Anders, M. D., Ph. D., LL. D.; "Tuberculosis of the Genito-Urinary Apparatus, Male and Female," by Nicholas Senn, M. D., Ph. D., LL. D.; "A Text-Book of Gynecology," by Charles B. Penrose, M. D.; "A Text-Book of Obstetrics," by Barton Cooke Hirst, M. D.; "A Manual of Orthopedic Surgery," by James E. Moore, M. D.; "A Text-Book of Embryology," by John C. Heisler, M. D.; "Pathological Technique," by Frank B. Mallory, A. M., M. D., and James H. Wright, A. M., M. D.; "Diseases of Women," by J. Bland Sutton, F. R. C. S., and Arthur E. Giles, M. D., B. Sc. Lond., F. R. C. S. Edin.

**Vesico-Rectal Fistula Caused by Migration of Swallowed Pin.** Under the above title, the *Fort Wayne Journal-Magazine* gives the report of a case read by Dr. C. S. Arthur, of Portland, Ind., before the Jay County Medical Society.

The patient, a woman aged 45 years, had swallowed a pin about eleven years before. In August, 1896, after severe pain in the lower anterior part of the abdomen for several weeks, the pin was discovered in the urethra and removed. In October, after increased pain for some weeks and passage of blood and fecal matter from the urethra, the abdomen was opened for the purpose of closing the fistulous opening evidently existing. The bladder, uterus and rectum were found so completely cemented together that the operation was abandoned and the abdomen closed. The patient continued suffering great pain, but at the time of the latest report was passing no fecal matter from the bladder, although she was having a profuse diarrhea.





A. R. BAKER, M. D.



### Original Articles.

#### INJURIES RECEIVED BY THE CHILD DURING BIRTH, AND THEIR PREVENTION.

BY F. S. CLARK, A. M., M. D.,

Visiting Physician to St. Alexis Hospital, Assistant in the Departments of Obstetrics and Diseases of Children in the Medical College of Western Reserve University.

It is with considerable hesitation that I present this paper, not only because this is my first attendance at the meetings of your society, but also because of the difficulty experienced in obtaining accurate information on many matters pertaining to the subject chosen.

For the mother, the risks of labor have been reduced by antiseptic precautions to a minimum. Her unborn child, however, receives far too little attention, its life being sacrificed because of a lack of watchfulness on the part of the attending physician, or the ignorance of the midwife, or because the mother's failing strength or inability to deliver herself leads to radical efforts that her life may be saved, where an early appreciation of the situation would save the child's life also. It is with the hope of starting more discussion in behalf of the child that I present this paper, trusting that it may lead to investigations as to the relation between difficult labor and causes of death whenever opportunity offers. There are very few institutions that practise making autopsies on still-born children or those dying soon after birth, and in private practice it is generally impossible to obtain the



consent of the parents, so that statistics are very meager. Most investigators have met with this difficulty and much to my disappointment I found that Cleveland institutions do not make such autopsies. I shall quote some statistics of those who have been able to collect series of autopsies, and I believe they will be very suggestive of what will be found when a large series of cases can be made.

According to Winckel, ten per cent. of all children born die before the eleventh day, seven-tenths per cent. dying during labor, and three and three-tenths per cent. from injuries received at the time of labor. The statistics of Julius Eröss differ somewhat from these, though he does not include premature births. Examining nearly 1,500,000 births in 16 large cities of Europe, he found a mortality of ten per cent. at the end of four weeks. Of these, 54.24 per cent. were due to congenital debility. What Eröss meant to include under the term "congenital debility" I do not know, but suppose cases which are reported as dying the first few days from "convulsions," "weakness," "cramps," "asphyxia," "premature birth," "cyanosis," and "atalectasis." He found one still-birth to every 28.5 deliveries, a mortality of nearly four per cent.

Dr. A. Brothers, of New York, in his valuable essay on this subject, which has been a great help to me, has quoted many statistics of others, and gives the following results of his own investigations: In a series of 201 still-births, he found that 53, or 26 per cent., were due to protracted labor or asphyxia, and the same number from compression of the cord. In 99 children, born alive, 60 died from prematurity and congenital feebleness, 18 per cent. died in three days after being resuscitated from asphyxia, and seven per cent. from convulsions due to hemorrhages. In 47 autopsies, the majority disclosed the fact that there had been obstructions in either mother or child, though definite relations between labor and causes of death could not always be established.

I have here a chart showing the causes and numbers of deaths, for each cause, of children under one month of age, in Cleveland, during 1896. I shall not weary you with reading it, but only give a few totals. During this

period there were 888 deaths reported and 48 causes. In 1896 there were 8,927 births reported, showing a mortality of 9.94 per cent., practically the same as that reported by Eröss. Eröss found one still-birth to every 28.5 deliveries. During the past year there has been a still-birth to every 23.1 deliveries, a mortality of 4.3 per cent. A large number of births may make the average approach that of Eröss. Comparing with Winckel's figures, I find a mortality of 7.67 per cent. in eleven days. During the first day there were 134 deaths due to causes as follows: "convulsions," 16; "weakness," 58; "premature," 26; "cramps," 9; "marasmus," 10 (this last I should think belonged under "weakness"); "asphyxia," 5; "cyan-

A CHART SHOWING THE NUMBERS AND CAUSES OF DEATHS OF CHILDREN DYING  
IN CLEVELAND DURING 1896, AND UNDER ONE  
MONTH OF AGE.

DISEASES.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Stillborn,.....	386																														386				
Convulsions,.....		16	12	4	5	5	6	6	5	5	6	4	1	2	15			1	2		1	7							6		6	115			
Weakness,.....		58	4	5	2	2	3	5	1		1	1	2	1	8			1				4								2		4	104		
Premature,.....		26	4	1	1	1	2		2	1					3	1						1	1									42			
Cramps,.....		9	4	6	2		3	1	2			4		1	4			1				1				1				1		3	45		
Marasmus,.....		10		2	1	1	1		2		3	1	1	2	10	1	1				1	13			1				7		11	69			
Asphyxia,.....		5																														5			
Cyanosis,.....		2																														2			
Atalectasis,.....		3																														3			
Difficult Labor,.....		3	1																													4			
Hemorrhage,.....		2																	1													3			
Spina Bifida,.....					1			1						1								3										6	2		
Ichthyosis,.....																													1			2			
Suppression of Urine								1																								1	1		
Intestinal Obstruc.,.....			1																														1		
Enterocolitis,.....																1	1		2			2								1		1	8		
Cholera Infantum,.....						1		3			1	1		5								2				1				1		16	4		
Inflam. of Bowels,.....						1		1			1											1										1	4		
Diarrhea,.....																					1												1		
Gastritis,.....																						1											1		
Jaundice,.....						1		1																									2	1	
Tonsillitis,.....																						1											1		
Bronchitis,.....								1	1							2						1							1	1		2	10		
Bronchial Pneum.,.....											1	1			5			2				2								5		2	18		
Pleuritis,.....																						1											1		
Meningitis,.....																						1											1		
Melena Neonatorum,.....					1																	1											1	1	
Congenital Malform.,.....				1			1																										2	2	
Congestion of Brain,.....				1																													2	2	
Lung Trouble,.....			1			1						1																					2	2	
Croup,.....																																		1	
Laryng. Stridulus,.....								1	1																									2	
Erysipelas,.....																																		1	2
Tetanus,.....						2	1	3		1																							6	1	
Rupture,.....						1																												1	1
Heart Disease,.....														1																				1	1
Anaemia,.....																																		1	1
Pertussus,.....															1	2																	2	1	
Indigestion,.....																1																		1	2
Asthma,.....																		1																1	1
Pyæmia,.....																						1												2	2
Whooping Cough,.....																						1			1								3	4	
Imperforate Rectum,.....																							1		1								1	1	
Gangrene,.....																							1		1								1	1	
Omphalitis,.....																							1		1								1	1	
Gastro Enteritis,.....																																		1	1
Heart Failure,.....																																		1	1
Winter Cholera,.....																																		2	2
	386	184	27	21	12	17	19	27	14	5	14	12	6	6	58	3	4	7	3	2	4	44	0	0	2	1	1	1	25	0	36	888			

osis," 2; "atalectasis," 3; "difficult labor," 3; and "hemorrhages," 2. Considering the causes, we would be safe in saying that at least three-fourths of the deaths on the first day were directly dependent on the labor. On the second day there were 27 deaths. The first five causes mentioned were the most prominent up to eight days and, indeed, throughout the first month of life.

In studying these statistics, I believe we can say that 65 per cent. are dependent on congenital debility as a cause, and in the statistics, after the first day, only the first five causes are considered. I further believe that very many of these deaths could have been prevented. I know that these statistics are not accurate, but they are as nearly so as we can estimate from the few autopsies that are being made.

Some deaths, and injuries perhaps, are due to diseases in the mother or child acting before, during, or soon after labor. These, however, I will not consider, but take only those injuries clearly dependent on the labor. The slightest of these is caput succedaneum, and, though it rarely takes an unfavorable course, may be associated with some intracranial injury, when a more serious outcome is to be expected. More severe and more likely to cause trouble is cephalhematoma. This may appear after a severe or easy labor and cannot be prevented. It usually absorbs within a few days and rarely suppurates. Unless it is connected with internal hemorrhage, it seldom proves fatal. Hematoma of the sternomastoid muscle and facial paralysis from pressure of the forceps seldom prove serious, though the torticollis following the former may be more or less permanent. A careless application of force may cause a more lasting paralysis, when, by making traction in the axilla, the brachial plexus is injured, while in version an arm or leg may be fractured also. The two conditions most disastrous to the child are asphyxia and intracranial hemorrhage, for if they do not result fatally, they, and especially the latter, very frequently cause permanent injury to the brain.

It has seemed to me best to enumerate first the conditions which will lead to asphyxia and hemorrhage. These all act by obstructing the circulation, either placen-

tal or fetal, whether the obstruction is directly applied, as to the cord, or indirectly from continuous pressure to the head through prolonged labor or abnormally severe pains in a shorter labor. A full bladder or impaction of feces may prolong labor very materially and serve as really a very effective obstruction to its termination till removed. Premature rupture of the waters, hypertrophy of the cervix, cicatricial tissue or a new growth acts in the same way. Contraction of the cervix around the neck of the child prolongs the second stage, and with after-coming head often proves fatal. In this connection I wish to condemn the practice of some who administer ergot to promote pains. It is a dangerous practice at any time during labor, and is especially so to the child. The violent pains caused by it interfere very markedly with the placental circulation. Brothers quotes from another that, in 30 cases where ergot was given, there were 20 fetal deaths, and where the fetal heart-beats were watched they soon fell to 100 and then began to intermit. This high mortality may not always occur, but it is a warning that should be heeded. A rigid perineum or exhausted uterus are two other causes of prolonged labor, but the one which too seldom receives attention is pelvic deformity. Granting that, as some claim, the American women seldom have deformities of the pelvis, still we have thousands of foreigners coming to our shores in whom we know pelvic contractions exist to quite an extensive degree. Since general practitioners, who do most of the obstetrical work, do not measure pelvis, we are not in a position to assert positively that deformities are rare.

I do not refer to the deformities that are easily recognized, but to those of a lesser degree, which, also, may act as a troublesome obstruction to the progress of labor. Such deformities are estimated to exist in from 75 to 145 out of every 1,000 cases. This is frequent enough to demand attention, for Playfair says one in every five cases of slightly contracted pelvis will result in a still-birth. Lusk quotes statistics showing 53 fetal deaths in 407 cases of slightly contracted pelvis in which birth was spontaneous. Where the contractions are sufficient to indent the child's head, Schroeder says 50 per cent. die, during,

or shortly after birth. Contracted pelves are a source of danger, also, in that they are a frequent cause of abnormal positions and prolapse of the cord, the latter condition having been found to cause death in from 37 to 53 per cent. of cases.

A prolonged pregnancy resulting in an advanced stage of ossification of the bones of the head, a hydrocephalic head, twins, and abnormal positions, are causes, existing in the child, of protracted labor.

To take up now the results of these obstructions, we find that asphyxia is one of the most prominent. It is seen in three grades: The first, where mucus exists in the air passages, is usually easily remedied; the second and third, known as "sthenic" and "asthenic," are caused by too much blood pressure, as from prolonged and difficult labor, and by too little blood where the placental circulation is interfered with. It is most important to recognize the variety because the proper treatment depends on this.

Dr. J. M. Taylor quotes statistics showing that 40 per cent. of the children suffering from injuries received at labor are first-born and have had asphyxia. But it is not in the asphyxia itself that all fatalities arise, but in the complications resulting from it. According to the author just quoted, these may be "congestion, effusion, thrombosis, extravasation, destruction of membranes and cystic degeneration." Such results are not surprising when we consider the delicate nature of the fetal brain and its membranes. Virchow and others have demonstrated the fragility of the blood vessels and the ease with which they are injured. It is further demonstrated in cases of death from hemorrhage following asphyxia where there has been no injury to the cranium.

Intracranial hemorrhages, another result of obstructed labor, have been found to be meningeal, in origin, in the majority of cases. Dr. Little, of England, was the first to suggest, and Dr. Sarah McNutt, of this county, the first to demonstrate the relation between these hemorrhages and labor. Dr. McNutt reported ten cases on which autopsies were held, showing the presence of hemorrhage. Seven of these were vertex presentations and three were breech. She concluded from these that

the hemorrhage more usually occurs at the base of the brain in vertex and at the convexity in breech presentations. In breech presentations convulsions occurred. Spencer was able to examine critically 130 out of 185 cases and found 85 in which hemorrhage or congestion was present. The hemorrhages may vary from a general distribution of blood over the surface of the brain to localized clots, either large or small, the presence of these depending on the length of life after the hemorrhage occurred. Where the hemorrhage does not terminate fatally, it usually injures the brain to such an extent that either cerebral palsy or idiocy, or both, result.

Cruveilhier claimed that one-third of the deaths during parturition were due to meningeal hemorrhages, and without doubt many of the deaths within the first few hours or days after birth from "convulsions," "weakness" and "cramps" are due to the same cause. This can only be inferred, for enough investigation has not been made to make positive statements, though comparison of symptoms in cases where no autopsy is made with those in cases where autopsies are made seems to justify the inference. Osler says that while only a limited number of cases of infantile hemiplegia are congenital, the large proportion of cases of spastic diplegia result from injuries received at birth. Sachs' and Peterson's investigations resulted in the same way. Dercum says that the fact that most of these cases are found in first-born is confirmation of the fact that birth traumata are a large etiological factor. Gowers studied a large series of cases in which the doubtful cases were thrown out. He says that difficult labor causes the hemorrhages injuring the brain. In about one-fifth of the cases it is due to the aftercoming head, in which the symptoms are easily understood. But the same symptoms follow vertex presentations. Some also occur where the labor is rapid and premature. He also says that where convulsions, rigidity and paralysis occur, meningeal hemorrhage will be found.

It is not my intention, nor is there time, to take up the symptoms and pathology of these conditions. By merely stating some of the results of investigations, I hope the importance of the subject has been emphasized, and yet, in approaching the end of the paper, I realize I

am falling far short of the mark set at the beginning.

There are a few points in the matter of prevention of these injuries which are most important and too frequently neglected. I want in closing to speak of these and urge that more attention be given to the mother before labor begins and to child as well as mother during labor.

The routine measurement of pelves by all practitioners will save many lives, not so much because wide deviations from the normal will be disclosed, as that it will call attention to the slighter ones which would otherwise be overlooked. The knowledge that such deviations are present will lead to a more careful observation of the progress of a labor and a preparation to act intelligently when the child's life is threatened because the labor has been prolonged by the obstruction. This, however, is a subject for an entire paper and cannot be further considered at this time.

Equal with pelvimetry in importance, if not more important, is the study of the fetal heart. It is remarkable how generally it is neglected. How can a labor be conducted properly when the child's condition is not considered? Over and over again has it been remarked to me by different ones that they never pay any attention to the fetal heart. Is it any wonder that children are born dead, are asphyxiated, or have intracranial hemorrhage, when no effort is made to discover whether the child is living, dying, or dead? The fetal heart is the only indicator we have to tell us how the child is enduring the strain put upon it by the labor, and this is not always easy to find. This very difficulty should lead to a more systematic study of each case. Oftentimes it is experienced because of a lack of knowledge of the relation of the child's body to the mother and because of too little patience. A careful palpation will aid greatly in determining how the child lies, and where the heart sounds will probably be found. Should they be found to be approaching 100 or exceeding 160 it should be a signal to interfere.

There are many cases in which the second stage of labor may be very slow where no real obstruction exists. Such labors may result disastrously to the child because of severe and long continued pressure to the child's head. When such pressure begins to interfere with the child's

circulation, forceps should be applied. It is a wrong impression that their use is the cause of most injuries. In careless and unskilled hands they may do untold harm, but otherwise they are a great life-saving measure. Dr. J. M. Taylor, who has already been quoted, published the opinions of many prominent obstetricians and neurologists on this subject. With scarcely an exception they were agreed that greater damage results from the conditions making the forceps necessary than from their use. A notable exception was Dr. Joseph Price, who claims that bad results to the child are due to the unskillful use of instruments. This position will not be supported by facts, however.

I do not claim that the use of these measures will save the lives of all the children. Many are due to diseases which will not and cannot be affected by such treatment. Again, the most careful application of every means known will sometimes fail, and no one must be too hasty in passing judgment where injuries or death have resulted. But the fact still remains that many injuries and deaths are caused by overlooking just these means of safety that I have mentioned, and till not only they but every other appropriate means are systematically adopted in every case of labor, we can expect just such results as we have now.

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## DISCUSSION.

DR. R. E. SKEEL, of Cleveland: Certainly Dr. Clark has given us a very valuable paper, and the statistics and conclusions he has drawn with regard to the damage to the child are as complete, I believe, as it is possible to obtain with the statistics at hand, because, as he said, they are very limited. The important thing is not what are the injuries, because they do occur, but how to prevent them. How can these various troubles,—asphyxia, intracranial hemorrhage, paralysis,—be prevented? As he said, very much depends upon the proper management of the labor itself. The paper is too full to discuss at length. In the first place, with regard to prolongation of labor, it has been my experience, and I think if we should all examine carefully during the first, or at the completion of the first stage of labor, to distinguish the position in which the head lay with regard to the pelvis, we would all find that a very common cause of prolonged labor is a posterior position of the occiput. Only a year or so ago one of the students called me to a case in which the head did not engage. Apparently everything was all right. The woman had had five children without a particle of difficulty at any time. Examining her pelvis I found the true conjugate was shortened about half an inch. There had been no difficulty with her previous labors. The whole trouble was that the child lay in the posterior position, the occiput was posterior, and so soon as it was rotated labor was completed without difficulty. So I think the position of the child is of great importance in consideration of the reason why labor is prolonged; as great, indeed, as are the ordinary pelvic deformities.

Granting that a marked pelvic deformity can always be determined beforehand, I think it is very difficult, indeed, to tell when we have a normal pelvis. The majority, of course, are agreed as to the size, except the length of the true conjugate. There is a variation as to the measurement of the true conjugate pelvis between German and American authors. Lusk will give us exactly four inches as the true conjugate diameter of the pelvis, while the German authorities, Winckel and Schroeder, will give us four and a half inches. So it is

pretty hard to tell exactly. The question arises in my mind every time I measure a pelvis, how large that head is going to be. It strikes me more forcibly than the size of the pelvis. I think the thing we have to study is the relation between head and pelvis in each individual case, provided there is no such marked deviation as to lead us to expect serious difficulty.

Another thing was the damage which is produced so frequently by version. It is one of the things that has followed me as Dr. Knowlton said some results followed him. In having a contraction of the cervix about the neck of the child after the body was born, and having a difficult time getting the head flexed, the arms getting up in spite of all that could be done. This is in private practice. I know I have lost many more children by doing version than with forceps. I believe that with the advantage we have to-day with the axis-traction forceps very many cases which were formerly subjects for version are to-day subjects for axis-traction. In many cases of slightly flattened pelvises, with the patient in proper position, the hips elevated to such an extent that the body of the child lies in a direct axis of the uterus, children could be delivered by axis-traction forceps which formerly were delivered by version. Then we shall not have so much difficulty with the head, so many broken arms in attempts to pull down. With one hand upon the abdomen it is, many times, almost impossible to keep the hands from going up and the chin from extending. We shall save a good many children that would otherwise get into serious difficulty if version is resorted to.

Dr. Clark spoke of ergot. In closing this discussion, I will say I tried ergot and will never do so again. I think the dangers of ergot are very marked. Somewhat earlier, when I was somewhat fearful about using the forceps, I gave ergot once or twice for the sake of stimulating the labor pains. But if one will give ergot a few times and witness the tetanic contractions I do not think they will feel like giving ergot a great deal, although I do believe at the present time authors are falling back and say a few drops of ergot may be given to stimulate pains. Notwithstanding, I think forceps are safer, if skillfully used, than ergot.

DR. DUTTON, of Cleveland: In regard to ergot, I stand just here, from my own personal experience as well as from the testimony of others: I never give anything that will contract the uterus. My first experience was in giving ergot, following Churchill, in my early practice. I am quite certain that with my present knowledge I should have brought into the world from that mother by the use of forceps a fully developed and living child, and as fully certain that my ignorance was the cause of the death of that child. In other words, I gave such an amount of ergot—no more than the books teach—as to produce a constant contraction with no yielding of the uterus at all, contractions so powerful and tremendous as to squeeze the child to death. The child was born asphyxiated. I believe it is perfectly safe and perfectly proper to give a few drops of ergot, not a medicinal dose, not enough to produce powerful contraction, but enough when you have a relaxed uterus to compensate in a measure for the relaxation. I do not believe there is the least bit of danger connected with that. I have done that over and over again with satisfaction to the mother and advantage to the child. I would only do that, however, in cases of great nervous weakness, or rather where there was not power enough on the part of the uterine fibers to produce a natural contraction. And there certainly can be no harm in giving a small quantity of ergot in that condition, for the reason that when the uterus is in that condition no harm can come to the child. To give ergot to hasten labor when there is power of the uterus to expel the child is simply child murder.

In regard to the measurements of the pelvis, I may be a hundred years behind the age, but from my side the obstacles are so great that I believe it is absolutely impossible to get at the precise figures upon measurements of the pelvis beforehand. It can not be done, and it is nonsense, in my view, to say (with all due respect to the opinion of the writer) that it can be done. I think I shall be sustained by the experience and practice of the men who are known in the profession, when I say that it is an absolute impossibility in the majority of cases to ascertain these very nice measurements.

I want to emphasize what Dr. Skeel said with refer-

ence to posterior position of the head; that it occurs much more frequently than the books say. I want to say in connection with it that in a great many of those cases instead of starting the forceps better let the case alone. With patience and careful manipulation and observation you will often find, even where you have delayed labor from posterior occipital presentation, that ultimately revolution takes place and the child is born in the natural way. I must stop here because this is so pregnant a subject that we shall have labor delayed until the rest of the program will be thrust out. I am glad to give way to observations from others on this subject.

DR. HANSON, of Cleveland: I wish to say a word upon the remark by a gentleman regarding the administration of ergot during labor. If I am capable of observing the action of the drug I think it is continuous, and if given in a dose to have any effect it will produce uterine contraction. I do not believe you can give ergot in such quantity as to produce normal contraction. Consequently I do not see where ergot can aid us in these cases.

DR. DUTTON: I think if the doctor will observe ergot he will see the stimulant will be limited in the length of time it will act. While the tendency of ergot is to produce a continuous contraction, I will ask him if he could give ergot enough to produce continuous contraction for 12 hours, 24 hours, 48 hours. I think I know from absolute experience and observation that small doses of ergot will stimulate the uterus to contract, and will produce a contraction which will last through the ordinary length of a pain. We know the time will come when relaxation will take place, even with the largest doses. I believe I know it will take place just in proportion to the size of the dose. It does not look to me at all marvelous.

DR. CLARK: I do not know that I have anything special to add. I am very glad Dr. Skeel referred to the reduction of the occipital position, because all along I could make only general statements. I believe that this, of all positions of vertex presentation, will cause more danger to mother and child than any other one position, and I wanted to ask Dr. Dutton how long he was going to wait for those revolutions to take place. In that position of the child it is most difficult to find the fetal heart.

If the occiput has rotated into the sacrum it is almost impossible. But we should recognize one point right away. We should take more pains in our examinations and should not be satisfied in finding out that the occiput is right or left. Get some idea as to how the head does lie. Study that sagittal suture. Then you will be in better position to recognize an abnormal position if it comes, and you will recognize it sooner if the occiput is rotating into the sacrum. But I have over and over again been able to rotate the head before it has gotten wedged down against the sacrum. But supposing you find it there, how long are you going to wait? You cannot perhaps get the fetal heart, and so cannot ascertain its condition, and especially if you have found the occiput wedged down, I should advise to deliver with forceps immediately. I would not take the responsibility of letting the case go on.

As to the subject of pelvimetry, I recognize as well as any one that the question of the size of the child's head has a great deal to do with it. It is one of the difficult things to estimate. Early in labor if we be careful with pressure over the abdomen downwards we may be able to find accurately whether the head will enter the brim, even a little, and if it does not our suspicions should be very much aroused as to some pelvic deformity. Of course you can not estimate in any one pelvis to the tenth of a centimeter. I think we have to admit that the Germans are authority in the matter of pelvimetry as well as in general obstetrics. Taking the pelvimetry with them is just as usual as taking the pulse rate. Of course the stature of the woman will influence somewhat the size of the pelvis, to just what extent it is difficult to say. I cannot go into that part of it now as I shall in another paper, but I believe we can come to very accurate results in spite of what Dr. Dutton says; and I think that if he would study carefully some of those fearfully difficult cases of his he would find the head stuck at the brim, and if he had found that was so he would perhaps have been able to anticipate things he did not see until afterwards. I know I can, and I have not been practising anywhere near so long as Dr. Dutton and others here.

THE PRESIDENT: I think this paper and discussion have demonstrated, besides some other things, the breadth

of the subject of pediatrics. There are so many things that bear on the infant that one must immediately reach out to the various branches of medicine and surgery when we come to look after the welfare of the child.

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CEREBELLAR TUMORS; TWO EXPLORATORY  
OPERATIONS; TUMOR NOT REMOVED.  
AUTOPSY; CYST AND FIBRO-  
SARCOMATOUS TUMOR  
OF THE LEFT LOBE.

BY JOHN F. MORAN, M. D., WASHINGTON, D. C., AND JAMES  
KERR, M. D., M. CH., WASHINGTON, D. C.

William B., aged 47; constitution good; married and father of children; occupation, merchant.

*Family History.*—Father died of paralysis, aged 60 years; mother died of asthma, aged 68 years. Thirteen brothers and sisters; one died of typhoid fever, aged 8 years; 10 died in infancy, one brother living and he is tubercular. Paternal grandmother 92 at death; grandfather, age and cause of death unknown. Maternal grandfather died of cancer of the stomach, age unknown; grandmother aged 60, cause of death unknown.

All family on paternal side long-lived; mother's relatives died comparatively young and most of them succumbed to tuberculosis.

*Early History.*—From childhood he suffered with headaches which the parents attributed to overstudy and they thought seriously of taking him from school. At the age of 17 he was struck on the head with a scrubbing brush but did not experience any serious trouble. Of late years the headaches have recurred with great frequency, as often as twice a week, particularly since February, 1895. They are of stabbing character and limited to the occipital region of the right side, the paroxysms lasting from twelve to twenty-four hours, and since August, 1895, accompanied with vomiting. Immediately after cessation of the attack, he is able to eat and does not suffer any gastric distress. He complains of vertigo in the recumbent, as well as sitting and erect position, and on attempting to walk, staggers and reels toward the left

side and sometimes falls forward. He has difficulty of vision and complains of buzzing in the ears. Specific history is negative, no paralysis or convulsions, mental state excellent.

Ophthalmological examination by Dr. Wilmer showed myopic astigmatism, perfect sight with refractive error corrected, and no organic disease in the interior or exterior of the eyes. Otological examination by Dr. Richardson: Slight retraction of membrana tympani, catarrhal inflammation of middle ear cavity, hearing in both ears 30-40, nerve conduction good.

I saw the patient for the first time January 1, 1896, and he was then in the throes of a paroxysm. His excruciating suffering and uncontrollable vomiting were pitiful in the extreme. During the paroxysm, as well as the intervals, his temperature remained normal and pulse regular and uniform, ranging from 70 to 80; right pupil was larger than left, both responding to light; no nystagmus and no appearance of optic neuritis; urine normal. Nothing was abnormal about the sense of taste or smell, there was no deviation of tongue, no impairment of articulation or difficulty of swallowing, no tenderness on percussion, nor was any difference in the percussion note of the two sides of the skull observed. There was staggering, uncertain gait, with reeling towards the left side, and marked incoördination of the right hand. Patellar reflexes were little if at all exaggerated and no definite ankle clonus observed. No distinct abnormalities of sensation were detected.

The paroxysmal headaches, projectile vomiting, vertigo, absence of fever, staggering gait associated with inclination to left side and sometimes to pitch forward, prompted a diagnosis of cerebellar neoplasm. Although the specific history was negative, a saturated solution of potassium iodid in milk was ordered in increasing doses up to 40 grains four times a day, and continued for several weeks without the slightest benefit. While the patient's family history was markedly tubercular on the maternal side, it was not deemed advisable further to continue medicinal measures, as it was known that for several months previous to my assuming charge he had received supportive treatment. An operation was there-

fore advised, hoping that it might at least give relief if it did not afford a radical cure. Drs. Kerr and Osler were called in consultation. Both, after a thorough examination, confirmed the diagnosis and approved of surgical interference. Owing to the absence of localizing symptoms, it was impossible to tell the exact situation of the lesion. The inclination to the left side, occipital headaches and dilatation of the right pupil suggested its probable location in the right lobe.

The operation was performed at Providence Hospital by Dr. Jas. Kerr, assisted by Dr. Edward M. Parker, in January, 1896. A tongue-shaped flap with free border reaching the superior curved line of the skull was made in the right occipital region. The opening was made in the skull with the trephine and enlarged beyond the medium line by means of chisel and mallet and rongeur forceps. There was no apparent bulging of the dura and the membrane was normal. It was incised and reflected, permitting of excellent exposure for palpation and inspection. Exploration of the right lobe was made but nothing abnormal detected. The left lobe was then explored with a groove director and it likewise gave negative results. Although great care and gentleness were used, the right lobe was considerably lacerated and a considerable portion removed. The cavity was packed with iodoform gauze, the dura closed and the flap united with several interrupted sutures. The gauze packing and dressings were renewed daily for several weeks, then a rubber drainage tube was placed in the lower angle of the wound and allowed to remain until the discharge ceased.

Although the operation failed of removal or detection of the lesion, it was successful in relieving the distressing headaches and vomiting and there was gradual improvement of the ataxia and incoördination so that the patient was able to walk with the assistance of a cane. The disturbance of vision, tinnitus aurium and giddiness still remained, and immediately following the operation there was slight difficulty in articulation. His general health improved for nearly a year, when the headaches recurred, attended with nausea, the gait became more and more unsteady, and finally he was unable to walk with-



out assistance. The disturbance of vision, hearing and articulation became more and more marked and the vertigo more pronounced. At the same time he experienced difficulty in swallowing, food often regurgitating through the nares; he also complained of tingling in the lower extremities.

Examination of the head showed an elastic globular tumor protruding through the opening made in the skull at the previous operation. Pressure upon it aggravated the headaches and other symptoms.

I advised a second operation to relieve intercranial pressure, and for the purpose of further exploration. Dr. Kerr was called in consultation and after conferring with Dr. Osler, an operation was agreed upon. During the year, Dr. Wilmer made several examinations of the eyes, as follows:

April 22, 1896. Homonymous diplopia from partial paresis of the left abducens, sight good, fields perfect, no choked discs, though the retinal veins of the left side were enlarged.

May 22, 1896. No paresis, no enlargement of retinal veins.

September 24, 1896. No diplopia.

February 4, 1897. Paresis of one of the oblique muscles of the right eye.

The second operation was performed February 28, 1897, by Dr. Kerr, assisted by Dr. Parker. An incision was made through the skin union of the previous operation. The dura was greatly adherent to the overlying structures and separated with some difficulty and attended with considerable hemorrhage, which was readily controlled. On opening the dura there was an escape of cerebro-spinal fluid, and beneath the membrane was exposed a cyst bulging into the opening in the skull. Puncture of this gave exit to about two ounces of straw-colored fluid and a small amount of gelatinous looking matter. The cavity, which measured about two inches in depth, was thoroughly explored but no growth found. It was thought perhaps that this was the original cyst and, being of small size and deeply situated, escaped detection at the first operation, and, owing to the space left by the partial destruction of the lobe, it had enlarged and

pushed forward to the surface. This view seemed plausible by the fact that there was a decided improvement in the symptoms immediately following the operation. The right pupil returned to its proper size; articulation was perfect, the incoördination of the right hand remarkably improved, and the patient was bright and cheerful and manifested much interest in the result of the operation. The improvement, however, was only transitory, as on the following day the articulation was again indistinct and a slight ptosis of the left eyelid observed, together with frontal headache and nausea; tongue heavily coated and breath very offensive; temperature 100°. From this time there was a gradual deterioration as evidenced by increase of mental sluggishness, difficulty of swallowing, paroxysmal coughing, continued fever, temperature fluctuating from 99° to 103°, sometimes higher in the morning than in the evening and *vice versa*. On the 17th day the temperature dropped to 97°. On the 18th it was normal and then gradually rose to 102° on the 21st day, when the patient died. Bacteriological examination of cultures taken from the wound showed presence of staphylococcus aureus but no streptococcus.

The report of autopsy performed by Dr. D. S. Lamb, Pathologist, Army Medical Museum, three hours after death, is as follows:

"Examination limited to the head. On the inner surface of the left middle fossa of the skull was a broad flat blood clot of somewhat recent date. Dura adherent to right cerebellar hemisphere so firmly that the latter was torn in removal; about half of the hemisphere had been removed by operation. Isthmus of cerebellum partly destroyed, probably by the same operation. Left hemisphere contained large cyst cavity with thin hemisphere wall; in the floor of the cavity was a tumor the size of an almond. In the absence of examination of the other body cavities, the cause of death would appear to be the cerebellar lesions. I am inclined to think that the large cerebellar cyst is a consequence of the removal of the cerebellar tissue by operation; since such cysts do form sometimes after removal or destruction of the brain tissue."

The microscopical examination, kindly made by Dr. Walter Reed, U. S. Army Curator, Army Medical Mu-

seum, shows the tumor to be a fibro-sarcoma and well supplied with blood vessels. The result of the autopsy clearly demonstrates that even if the tumor had been discovered at the time of operation, owing to its deep situation, and close proximity to the medulla, any attempt at removal would have been extremely hazardous.

The points worthy of remark about this case are:

1. Absence of distinct localizing symptoms.
2. The nature of the growth and duration of the symptoms.
3. The decided improvement of locomotion and in-coördination, although half of the right lobe was destroyed and there was chronic inflammatory condition of the middle lobe.

4. Explanation of the presence of the cyst of the left lobe, whether it existed at the time of the first operation or was formed subsequently, owing to the relief of pressure, or whether it is due to dégénération of tumor.

Though a microscopical examination was not made of the wall, its smooth and transparent structure would seem to contraindicate the latter. Williamson believes that the majority of cysts formed in the cerebellum are degenerated tumors, based upon examination of cysts which appeared to be simple, but careful microscopic examination showed, in the wall, a mass of new growth.

The presence of headache, causeless vomiting, optic neuritis, vertigo and ataxia, points to a very great degree of certainty the existence of cerebellar lesion, yet it is impossible, unless there be cranial nerve palsies, to differentiate cortical from subcortical neoplasm, nor have we any sign of positive value as to character or extent of primary growth. The headache, particularly if associated with tenderness, is suggestive, but it is frequently frontal, and in this case was on the side opposite the lesion.

Optic neuritis is a very important sign and is usually found in the majority of cases of cerebellar growth. Repeated examinations, however, showed its absence. Vertigo is also a valuable aid in forming a diagnosis, but it, too, is sometimes absent, and its presence in affections of other parts of the brain and internal ear must not be overlooked. Ataxia is the most characteristic symptom and according to Nothnagel is due to pressure upon or in-

volvement of the vermis. Luciani denies this but attributes the ataxia to irritation or destruction of the peduncles. Collins observes that lesion of the middle lobe is not attended by any special symptoms not found in involvement of other parts of the cerebellar lobes, while, according to Sacchs, incoördination is present in 80 per cent. of tumors involving the middle lobe, and only 49 per cent. when the lateral lobes are affected. Finally, Bruns, from a study of four cases of his own and six of Oppenheim's, Bernhardt and others, concludes that disturbance of equilibrium identical with so-called cerebellar ataxia occurs very frequently in tumors of the frontal lobes. Can the inclination be relied upon in determining in which lobe the tumor is located? An analysis of 20 cases by Starr in which staggering to one side was a prominent and constant symptom, shows that in 16 cases the staggering was away from the side of lesion and 4 cases towards the side of lesion. Krauss has observed in 35 cases that the proportion is greatly in favor of reeling towards the diseased side. According to Luciani, if the patient staggers away from the lesion the condition has been one of irritation of the peduncles, while if the staggering is towards the lesion it is due to the destruction of the middle peduncles. It is impossible to determine during life from the symptoms in any given case whether there is irritation or destruction. Therefore, no positive conclusion can be reached. The cerebellum, like other organs of the body, is liable to invasion by morbid growths, the most frequent varieties being tubercular, gummata, sarcoma, glioma, and cysts.

The treatment of intracranial tumors in general is divided into medicinal and operative. Gummata, particularly in the early stages before the occurrence of pachymeningitis and degeneration by cutting off the blood supply, are amenable to mercury and iodids. Horsley and others have observed from the same treatment temporary abatement of the symptoms in glioma and other morbid growths, but are unable to explain its action. Bruns, Gowers and Oppenheim report spontaneous cure of intracranial tumors, but the occurrence is so rare as to make it of little importance. Horsley and Bruns consider that six weeks is sufficient limit for internal treat-

ment unless there is marked improvement, while Starr would extend it to three months.

The operative treatment of tumors of the cerebellum thus far has not been very successful. The obscure knowledge of the physiology, want of means of determining the nature and extent of growths, and the inaccessibility of the ventral surface, limit the field and make the operation, of necessity, an exploratory one. Starr has collected 16 cases with operations: in 9 cases the tumor was found; in 2 cases it was found but could not be removed; in 3 cases it was removed and the patient recovered; in 2 cases it was removed and the patient died.

Collins and Brewer have recently reported a case of partial removal of a subcortical tumor of the cerebellum and the patient suddenly expired two and a half months later, during a second operation, for complete extirpation.

In spite of the few successful cases of removal of cerebellar growths, the excellent results of Horsley, Knapp and others, who have operated in a number of instances solely for the relief of pressure symptoms, demonstrate that it is possible to prolong life in comparative comfort, since it would appear that our chief hope for palliative or radical relief lies in surgical interference.

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## CHOLERA INFANTUM.\*

BY W. C. MCGEE, M. D., HOUCTOWN, O.

Some physicians will include all forms of enterocolitis under the term "cholera infantum," but I think we should restrict that term to cases in which there is a very violent form of diarrhea and vomiting with extreme depression and most rapid wasting of tissue. This view, if carried out, would no doubt materially lessen the statistics and give us better figures in mortality of genuine cases of this disease. There has been a vast amount of bacteriologic work done in the diarrheal diseases of children, but this is within reach of all, through late books and journals.

My object in writing this paper is more to give to the society my results in the cases I have had and briefly to refer to treatment used, rather than to discuss other clinical features of the disease.

I have kept a record of 37 cases which I diagnosed cholera infantum, three of which terminated fatally. The remedies used were standard and reliable ones, whose therapeutic value was established beyond every doubt. And just here I believe if we succeed in so grave a condition as that presented in a case of true cholera infantum, we must stand aloof from every semblance of experimenting. I insist that many cases might be saved if we stick to our old friends in drugs and the use of same are opportune. I use in the cases as they are indicated calomel, fluid extract belladonna, veratrum viride, lime water, pepsin, bismuth subnitrate, oxalate of cerium, brandy and chalk, and seldom go outside of this list. With a few exceptions my cases of cholera infantum have followed apparently mild cases of enteritis and after subsidence of gravest symptoms shown same class of symptoms with gradual improvement. Before the actual inception of cholera infantum in a child suffering intestinal disease, if I note a paleness around nostrils or ears, or drooping of lids of either eye showing relaxation, or if the heart shows slightest signs of an "impending storm," I begin to give large doses of brandy very frequently and keep it up so long as any stimulant is needed. If the heart needs more help an occasional large dose of fluid extract

\*Read at meeting of Ohio State Pediatric Society, Cleveland.

of belladonna may be given. If stools are acid in reaction I have had good results by allowing the little patient to quench his thirst by drinking lime water, and give large doses of chalk mixture. And also use injections of water that has been boiled and then allowed to get nearly cold with  $\frac{1}{3}$  to  $\frac{2}{3}$  of lime water. For vomiting, minute doses of calomel often give good results. But early and late my sheet-anchor is bismuth and pepsin in large doses and alternated with brandy. One or more doses of anything else that the attending physician knows is required is right. But one open secret is this: Cholera infantum of the restricted type is of hours duration rather than days, and to get results of the noblest kind the doctor should hardly leave the bedside of his little patient until changed for better. It is much better to sacrifice some business than to lose the joy and satisfaction of handing back to extremely anxious parents the little one who has been so near the brink. I have lost many a whole night's sleep in order that I might thoroughly watch every move made by the insidious enemy and because I could not trust any nurse to watch for me. And I have been rewarded many times by seeing the smile come into my little patient's face and the gradual restoration to perfect health and vigor. At this point I wish to say that I seldom use opiates and when I do it is camphorated tincture of opium. For pain, I depend largely on turpentine stupes and injections of water of sedative warmth, and these I repeat as frequently as indicated. For diet I prefer some reliable prepared food given frequently, but in very small amount at a time. Now, gentlemen, to sum up as to treatment; I say *standard drugs, constant or very frequent visitation*, frequent flushing of bowels, unless temperature is below normal, and even then, but with warmer water and less frequently, and very scanty diet until a change has occurred. The rest of the treatment is simply symptomatic, with continued care in articles of food.

That we may sometime be able to fully master this long-dreaded enemy of happy childhood and bring high honor to ourselves by reason of light mortality records is the wish of your fellow-member. And may this high honor reach every one of our society membership.

## DISCUSSION.

DR. CLOUSE: I will hardly say enough to justify the term "discussion" of this paper. I admire the loyalty of the doctor to his patients. This is a disease that requires early treatment, quick treatment, and heroic treatment,—this dread cholera infantum. But there are a great many diarrheal conditions that are termed "cholera infantum" that we all have reason to believe are not. There is one thing I want to mention and emphasize, which the doctor has already done. That is the administration of brandy. In true cholera infantum almost from the very beginning we have great prostration, great exhaustion; and brandy, it seems to me, will supply a want which nothing else I know of has supplied in my hands. Give it early and in large doses as the essayist has mentioned. The remedies that he has mentioned are all very good. There are others that have been probably equally as successful in your hands as these have been in the hands of the essayist. He mentions that he does not give opium. I believe that morphine hypodermatically is indicated in some cases, and is recommended in some of the later authors, although I have not used it and cannot speak personally upon it.

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THE NURSE.\*

BY L. HARRISON METTLER, A. M., M. D., CHICAGO.

There is a Persian legend which says that the souls of men are the Genii of Light who have strayed from their bright dwellings in the stars, and having lost their way and become mingled with this material sphere, have had their original natures obscured. In the occasional manifestation of human kindness and sympathy, we catch a glimpse of the divine love and immortal goodness of these spirits before they left their heavenly paradise. If it be true, as Plato taught and Wordsworth sung, that the soul, before it came to earth, existed somewhere in a state of perfect bliss while the unhappiness which it knows here is due solely to its association with the flesh; if it be true that in its previous existence it was all

\*Address before the Graduating Class of Nurses of Lakeside Hospital, Chicago, June 1, 1897.



love, sweetness and beauty, while the selfishness, folly and repulsiveness which, alas! it too often reveals here are to be attributed to the imperfections of its corporeal dwelling, it follows that the greatest joy and the most perfect development on earth lie in the cultivation of the soul's original graces. I know of no walk in life which offers so fertile an opportunity for the winning of this happiness and the cultivation of this development as that of the nurse. In the hour of its travail, and pain, when the brain is ablaze with delirium, when the burning nerves are being rent asunder, when fell disease is dancing its mad carnival through the blood-vessels, the poor soul, imprisoned in the wrenched and tortured body, cries out in its agony and thinks longingly of its home beyond the skies. But, lo, another soul approaches it; a gentle hand is placed upon its brow, a soothing word is whispered into its ear, a cooling draught is placed at its lips; in the midst of its agony and despair it forgets for a moment the pain, looks up and in the ministrations of love, pity and hope recognizes a heavenly mate. It is no longer alone in its suffering and terror; a divine sympathy has assuaged its fears; and over it broods a patient calm and hopefulness.

Young ladies, I congratulate you upon the noble calling you have adopted. I congratulate you upon having faithfully pursued your studies and won your diplomas. I envy you the many satisfactions and blessed experiences you will have in the comfort and peace you will be able to bring to suffering humanity. Your relations with patients and their families will be more intimate than is possible in any other walk of life. Your entrance into the home of sickness will be hailed as a harbinger of health; your kindly suggestions will be performed almost before you have finished giving them; your footsteps will be followed with affectionate anxiety; your every wish will be a command, and even the hours that will be gladly granted you for needed rest will be anxiously counted with a longing expectancy of your return to the bedside. You will come into the closest contact with culture and refinement. You will know what real gratitude means. You will feel the warm grasp of the hand into which the patient's whole soul will have flowed.

You will form undying friendships, and when you will have gone from the home with the patient restored to health you will be missed as one of the family and the memory of your devotion to them in their hour of trouble will be enshrined among their most precious possessions. Am I misleading you with too roseate a picture? I think not, for as a physician I have known such experiences and as nurses you will realize them more than any physician ever can. Nay, more, you have doubtless already in your preparatory service at the hospital seen somewhat of the gratitude of which human nature is capable.

However, I do not wish you to imagine that I think a nurse's life lies along a path of roses. Life is made up of contrasts and the greater one's happiness so much the greater will be his disappointments. Do you regret that? Would you have it otherwise? How exquisitely beautiful is the soft musical strain that follows the wild, unharmonious rush of minor chords! How brilliant with gorgeous color is the sunset when partly obscured by broken masses of clouds! Believe me, there is a grandeur, a magnificence, to stir one's whole being in minor chords and sullen clouds. There is something splendid in the Satan of Milton's *Paradise Lost*. There is a greatness in the destroying passion of Goethe's *Faust*. Disappointment and sorrow are not devoid of interest and if you learn to love the grand and the impressive, if you are happily endowed with a depth of feeling to appreciate the everlasting restlessness and soaring ambition of human nature, you will not grow petulant with the strange vagaries and ingritudes of men. You will sympathize and sorrow for their shortcomings. You will see a pathos in their follies and meannesses. Your disgust will be tempered with pity; and, though you may be the victim of their unkindness and brutality, you will feel not a vain resentment, but a depth of commiseration that will lift you nearer the divine. You will have many disappointments in the career you have entered. You will marvel at the absurdities of men. The haughty Catherine de Gonzague de Cleves, Duchesse of Longueville, wished in accordance with the fashion of her day to be bled. The surgeon opened the vein before she was able to turn her head away from her arms. She promptly and rudely dis-

charged him, remarking, "What an impudent fellow that man is; he bled me in my own presence!" You will meet this kind of individuals even to-day. A patient is a frail human creature that is sick, and his friends about him are under an unwonted nervous strain. Petrarch the poet wrote some of the most scathing things against medicine when his heart was saddened by the death of his beloved Laura; yet he lived to a good old age by following the suggestions of the very doctors whom he had so bitterly ridiculed. Harsh and ungenerous words will be spoken to you, evil motives will be set to your charge; your best endeavors will be passed unappreciated; all sorts of petulant sayings and doings you will know; but let me assure you, these minor chords, these black clouds will render all the more beautiful the melody and the sunshine. You will learn to realize, under these trying circumstances, as you will under no other, the truth of the words of the Master, "It is more blessed to give than to receive."

The profession of nursing is not a modern one by any means, though the recent advancements of science compel the modern nurse to undergo a special training. It is now expected that she know the rudiments at least of almost every department of medicine. Anatomy, physiology, materia medica, chemistry, and symptomatology she must have some slight acquaintance with. Bacteriology and dietetics she must have quite an extensive knowledge of. It is well that it should be so, and on account of these acquisitions the modern nurse has become an invaluable assistance in the conflict with disease. Many mistakes that used to be attributed to the art of medicine were largely due to the errors and negligence of the patients when left alone to carry out the physician's orders. A nurse who understands the anatomy of the brain will naturally give more effective assistance to a physician treating a case of cerebral meningitis than one who does not. A knowledge of the properties of drugs and their dosage on the part of the nurse will obviously prevent many accidents in the sick room after the physician has carefully given his directions how those drugs are to be administered. This special knowledge, however, is not the most important for even the modern

nurse to have. To know how to prepare dainty viands, under the physician's general directions, and above all to fully realize the necessity of absolute cleanliness and asepsis are her most valuable scientific attainments. No well trained nurse will consider ordinary lake water aseptic and wash, as I recently saw an untrained nurse do, an infant's bottle with antiseptics and then rinse it in the water running directly from the faucet. The knowledge of the trained nurse must be eminently practical and embrace all the details of the actual practice of medicine. The field of her technical studies, though not commensurate with the whole of medical science, is nevertheless a broad one. The physician advises, the nurse executes. The ideal nurse, therefore, recognizes the limitations of her field and by so doing enhances the sphere and usefulness of her special activities. She admits her scientific training is given her merely to enable her to comprehend and carry out more intelligently the treatment of the medical adviser. Important, therefore, as it is and demanding of her much hard study and observation, even her technical knowledge is not the modern nurse's highest endowment. Of her who only has technical skill Xenophon might have tauntingly said to Cyrus as he did of some doctors, they "were like tailors and cobblers, the one mended our bodies and the other our clothes." Ah! no, to merely know how to use the thermometer and to be able to name the various bacteria, while useful adjuncts to a nurse's qualifications at the present day, is not after all the highest kind of knowledge. Nurses, like poets, are born, not made. Just as any individual may learn to string rhymes together and yet never become a "subtle-souled" poet, so anyone may acquire the trick of taking a patient's temperature and yet be a complete failure as a nurse.

" You may quote Greek and Latin,  
E'en by the inch or yard,  
But pills and clysters never heal  
A heart that groweth hard."

Evangeline, as a Sister of Mercy, to whom

" The dying  
Looked up into her face and thought indeed to behold there  
Gleams of celestial light encircling her forehead with splendor  
Such as the artist paints o'er the brows of saints and apostles,"

is more of an ideal nurse in her tender devotion and ignorance of scientific knowledge than she would be whose special training in all the branches of medicine is not accompanied by the gentleness and affection of a warm heart. The soldier may not comprehend the plans of his commander, but if he has a sincere love of country and kindred he will fight a nobler fight and win a grander victory than if he were versed in all the military art with his heart devoid of patriotism.

In the *Odyssey*, Homer pictures a true nurse in dear old Euryclea, who first recognized the wayman Ulysses and was beside herself with joy upon his return.

"Then to the queen, as in repose she lay,  
The muse with eager rapture speeds her way;  
The transports of her faithful heart supply  
A sudden youth and give her wings to fly."

Fidelity and devotion have always been represented as a nurse's finest qualifications. Of all Shakespeare's characters, none awakens our amusement and affection more than the nurse in *Romeo and Juliet*, so lovingly devoted and everlastingly busy is she to further the happiness of her sweet Juliet, even to the point of getting herself into a whole peck of trouble. In the *Orestes* of Æschylus and the *Trachinial* of Sophocles, are nurses whose fidelity and devotion are lauded. One of them had evidently seen so much suffering in the household where she abided that she makes this sage remark, true to-day as it was 500 years B. C.: "Such is the state of circumstances here, that if any one count on two days or more, he is foolish; for there is no morrow before he pass without misfortune the present day." Even in the figurative language of the poets the chief idea of a nurse, from the Latin, *nutrix*, is one who nourishes, fosters, upbuilds. Walter Scott sings:

"O Caledonia! stern and wild,  
Meet nurse for a poetic child!"

Which would seem to show that as the nurse is, so is the child or patient. Many a patient is made petulant because a nurse is uncongenial and irritable. Technical knowledge can not alone make a nurse. In one of his *Canterbury tales*, Chaucer says that sleep is the "norrice of digestion" and Milton uses the word thus:

"And wisdom's self,  
Oft seeks to sweet retired solitude,  
Where, with her best nurse, Contemplation."

In the "Tam O'Shanter" of Robert Burns, the idea of nursing being to foster is thus brought out:

"Where sits our sulky, sullen dame,  
Gathering her brows like gathered storm,  
Nursing her wrath to keep it warm."

The notion of sustaining and developing is as true of the trained nurse of to-day as it is in the figurative language of the poets. The most perfect nurse is devoted to her patient and modest; she does not presume upon her little knowledge of the rudiments of medicine to doctor the patient; she nourishes her mentally and physically, while supporting and maintaining the treatment instituted by the medical attendant. The physician and not the patient is the nurse's guide. Occasionally the patient and her physician will be in gentle opposition, and then the nurse will be called upon to exercise her finest diplomacy. These little conflicts are inevitable at times. The French satirist, Chamfort, relates this amusing incident: Dr. J. operated on one of his clients and cut off the leg. A relative of the patient took the surgeon to one side and said: "Do you think, doctor, that our friend will recover?" To which the medical scientist replied, "I never had the slightest hope of such a good ending." Thereat the indignant relative exclaimed, "Why did you make him suffer then? Why in the devil operate upon a person already given up for lost?" The surgeon answered calmly, "Oh, it is necessary to humor patients a little, at times!" An honest physician cannot always humor his patient. The latter is not wise. As Dante says of him:

"Ye are sick  
And in your tetchy wantonness as blind  
As is the bantling, that of hunger dies,  
And drives away the nurse."

Tact, gentleness and an insight into human nature on the part of the nurse, in such crises, may restore a patient's confidence, secure a return to the physician's orders, and possibly save a valuable human life. No wonder the poets have always sung the praises of the nurse! The great dramatist, Moliere, who never missed

an opportunity to raise a laugh at the expense of human folly, pointed some of his sharpest witticisms at the medical profession of his day. In that inimitable comedy, which I hope you will all read some day, *Le Malade Imaginaire*, he portrays in the character of Toinette an almost ideal nurse. All sorts of unkind things have been said in literature against doctors, but with the rare exception now and then of a "Sairey Gamp," the nurses of literature have been idolized and praised.

Only yesterday, with slow, measured step and to the sound of muffled drums, the regiments marched to the cemeteries to decorate the graves of the Blue and the Gray. From the Gulf to the Great Lakes, from the Atlantic to the Pacific there is not a soldier's grave to-day without its garland of flowers,—the emblem of a nation's love. The country was in peril, the germs of discord had racked it from border to border. The agony increased until groans and shrieks filled the air and the green valleys were covered with the dead and the dying. The conflict waged hotter and hotter. Sons and fathers and brothers forsook the forge and the counting house, and shouldering their guns marched into the front of the fray; many fell, some survived. The roar of cannon and the roll of musketry reached a climax and then grew fainter and fainter. The bright rays of the sun of peace began to shine once more through the smoke. The country was saved and now we sing anthems of praise to Almighty God for giving us Lincoln and Grant and Sherman and the Boys in Blue! I tell you, there was something divine, something Christ-like, in that self-sacrifice.

It is a magnificent thing to save a nation. It is a great thing to save a human life. The rebellion of disease and misery is the cause of many thousands of battles in a year. It is a fierce struggle and the enemy is strong. Science is creating all kinds of weapons to equalize the conflict but still many are the noble lives that go down in the fight. In this righteous conflict, you, young ladies, have assumed an important rôle. You are the rank and file of the combatants. You will stand in the very front of the battle. Some of you, like Florence Nightingale and Elizabeth Fry, may become great leaders, but each and every one of you can deal a mighty

stroke in downing this hydra-headed monster—disease. It will be your divine privilege to assist in snatching from its jaws many a helpless victim. If you are faithful to your trust, rich will be your reward. Once more permit me to congratulate you upon the splendid opportunities for doing good that now lie before you. May God bless your efforts and give you a bountiful recompense.

*Non nobis solum.*

(Class motto.)

"Not to myself alone,"

The pearly drop cries, falling on the lawn;

"Not to myself alone I seek the ground

And haste to bless all nature in its round.

In evening's hour as well as early dawn,

I bless the rich, I bless the friendless poor,

I cheer the faint;

I aid the songster, singing near the moor

In notes so quaint."

"Not to thyself alone,"

O man! forget not thou—earth's honored priest,

Its tongue, its soul, its life, its pulse, its heart—

In earth's great chorus to sustain thy part;

Chiefest of guests at love's ungrudging feast,

Play not the niggard; spurn thy native clod,

And self disown;

Live to thy neighbor, live unto thy God

"Not to thyself alone!"





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## Editorial.

### THE PROFESSION AND ITS ENEMIES.

The profession of medicine is beset with so many evils that it is, according to those who look upon the dark side, about to arrive at demnition bow-wow-dom, or go into the hands of a receiver. The evil we hear most about just at present is the dispensary abuse. Coupled with that is the advertising of the individuals who run the dispensaries or work wonders in surgery. In some of the large cities East and West hundreds of physicians are suffering for want of business. Dr. Lanphear, of the *American Journal of Surgery and Gynecology*, says there are nearly 400 doctors in St. Louis who are practically starv-

ing. We hear of Brooklyn physicians hiring as motor-men or street car conductors.

So much attention is attracted of late to the abuse of dispensaries that for the moment we lose sight of an older and greater evil,—the patent medicines. Counter prescribing raised a great complaint a few years ago. Contract doctoring, lodge doctoring, newspaper advertising are disgraceful evils which exist all round the globe. Our esteemed contemporary, the *Australasian Medical Gazette*, gives us news of the continued battle between ethical decency and lodge doctoring and quackery, away at the other side of the earth. There seems to be no limit to the number of heads of this Hydra of charlatanry, professional hypocrisy and crankism. Physio-medicalism secured a legal foothold, and now osteopathy, a kind of cross between Christian science, mysticism and massage, threatens us. The Legislature of North Dakota has passed an act legalizing osteopathy, and Illinois only escaped being disgraced in the same way by the veto of her Governor. Here in Ohio osteopathy has emissaries near the halls of legislature.

Although Cleveland has so far less to complain of than New York and Brooklyn, Philadelphia and St. Louis, we are not free from serious annoyances and even dangers. No city has been more industriously plied with patent medicines, or thoroughly worked by advertising quacks. We have grown accustomed to these drains upon our prosperity and insults to our intelligence and skill. There are occasional indications that we have among us those who, while they would not for the world advertise in the newspapers (because they dare not), are in nowise averse to being interviewed or having their wonderful discoveries or operations heralded to the public through the friendly reporter; and only lately there has been a movement to do a land-office business in prescribing and dispensing at a fifty-cent rate. What is to be the outcome of all this? Is the ethical and competent physician to be driven from the field, and scientific medicine disgraced and dragged about by a rabble of peddlers and conjurers? Without the jealous watchfulness and zealous activity of those who love their profession this will be the inevitable result.

Still we have too much faith in the spirit of the pro-

fession to believe that it will allow such things to exist always. Why, sometimes in our cheerful moods we almost dare to hope that medical men of ability will become ashamed of being the minions of corporations, or will at least have as much spirit as the laboring classes and strike for higher wages. We have expressed our faith in the loyal spirit of the great body of the profession; and its ability to cope with all these evils—if that spirit can be aroused.

The trouble is we are too careless. How did the profession in St. Louis or New York get into such a deplorable state? By allowing itself to be gradually encroached upon without making an individual, a united and a vigorous objection. Each member of the profession should consider himself a sentinel whose duty it is to faithfully guard the interests of the profession and of the public in matters of health. The medical profession and every individual member of it should realize that we have the power—if we will wake up and use it—to eradicate every one of these evils. We are too indifferent, and pay no attention further than occasional ineffectual complaining, until the enemy gains such strength as to be formidable. We leave all the law-making to the politicians, most of whom care nothing about us. We do not protect our discoveries by patent right, in order that mankind may reap full benefit, but we take no steps to prevent less scrupulous persons from taking advantage of all our discoveries and getting all the reward from the public. We allow ourselves to be duped and imposed upon on every side with the most idiotic complacency. 'Anything pays a doctor for his services—another title to hitch onto his name, a little well turned flattery, a pass over the road, a promise to pay next year or as soon as convenient—and thousands of dollars' worth of work are done for nearly nothing. By and by we find out the profession is overcrowded, and that there is not work enough to go around; and that we are harrassed by this abuse and by that imposition and wonder and lament at the fix we are in. The fact of the matter is we have nobody to blame but ourselves. And another truth is that we can right these wrongs just as soon as we really will to do so, and pull together for that purpose.

"MEDICAL TERMS."

"We venture the opinion that no class of professional men make so many and such gross errors in the use and pronunciation of the technical terms of their craft as do physicians, medical students and medical professors.

"In our common school days we were accustomed to the course of standing in line and spelling, pronouncing and defining word after word from a dictionary or selected list. This was good practice. Just such practice as this should be given in every medical school, commencing with the first year and continuing until graduation.

"One hour each week devoted to a brisk class drill or competitive contest in spelling, pronunciation and concise definition, would do much to familiarize the students with the very few thousand terms in common use in medical literature.

"Prompted by the article in the March, 1896, *Council*, in which the proper pronunciation of the word 'gynecology' was discussed, the following letter was received from Dr. John F. Oaks, of 6232 Monroe avenue, Chicago:

"MY DEAR DOCTOR:—I was much pleased with the editorial, since it was in harmony with my views (vide, my brochure on 'medical orthoepy.') It is not only surprising but positively painful to hear the 'professor' mispronounce not only Anglicized Latin words, but pure English words, like nas-cent, saying na-cent, making the vowel a long instead of short like in at.

"I wish in this connection to call the attention of your readers to the following orthoepic rules as an incentive to further study and possibly a polemic, controverting my dictum:

"Firstly, that words of two or more syllables ending in ic have the accent on the penult, and the vowel in the penultimate is made short. For example, atrophic, orthopedic, should be pronounced a-troph-ic, ortho-ped-ic and not as frequently heard, a-tro-phic, ortho-pe-dic.

"Second, words ending in al have the accent on the antipenult. For example, palatal, vaginal, scarlatinal, are pronounced pal-at-al, vag-in-al, scar-lat-in-al, and not pa-la-tal, va-gi-nal, scar-la-ti-nal, as frequently heard.

Fraternally,

JOHN F. OAKS."

We quite agree with the editor of the *Medical Council* (from which the foregoing is quoted), and his correspondent, upon the desirability of greater accuracy in the use of medical terms. But is the evil really so serious that we must burden the curriculum of the medical school with another exercise? Will it not be sufficient if the medical student, being ordinarily proficient in English and acquainted with the use of a dictionary, studies the new terms and their spelling and pronunciation for himself as he meets them in his college course? If we really must have a course on dictionary in the medical college, what is to be done about the practitioners who have passed their college days and yet can not spell, pronounce, or define?

Shall we have spelling matches in the medical societies and give a prize to the member who spells the rest all down? If it be true, as has been asserted, that one of the professors of a St. Louis medical college spells syringe, "sernge," the trustees of medical colleges, in St. Louis, at least, should appoint a tutor to coach candidates for professorships or condition them in spelling when elected to a chair. Not having a dictionary at hand (it is not yet obligatory in the Cleveland medical schools), we do not like to be positive, but we have a suspicion in regard to that word scar-lat-in-al. Scar-lat-in-ous might do; but scar-lat-in-al certainly does not sound well.

By the way, we would like to inquire of Dr. Oaks:

First, upon what authority he uses the word "firstly?"

Secondly, since when have we the word antipenult?

"In our common school days," as brother Taylor says, it was antipenult; but that was in ante-critical times. Now that we have to endure anti-vaccination and anti-vivisection, must we also try to get along with antipenult? We observe also that Dr. Oaks spells syllables, "syllables." Is this one of the reforms he is endeavoring to secure? But never mind — l is a small, thin letter, anyway; and we will not be particular about a little thing like that.

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J. LEWIS SMITH, M. D.

Very few physicians have been so widely and so favorably known in this country as Dr. J. Lewis Smith.

Certainly none have been better known in connection with the subject of diseases of children than he. His application to this branch was so long continued, his industry as a teacher and writer so active and untiring and his success so eminent, that a national and inter-national reputation of the highest order was the inevitable result. He practised medicine for forty-four years and for fully forty years of this time he gave his best thoughts to the diseases of children. J. Lewis Smith was born at Spafford, New York, Oct. 15, '27. He graduated from Yale College in 1849. He took a course of lectures in Buffalo Medical College in '50-'51, being at the same time interne at the Hospital of the Sisters of Charity, in Buffalo. He then attended the College of Physicians and Surgeons of New York, from which he graduated in 1853. Settling in the city of New York, he remained there in active practice until his death, which took place June 9, 1897. In addition to private practice, Dr. Smith was always actively interested in hospital work. Early in his practice he was appointed physician to the Northwestern Dispensary and afterwards he long held the position of physician to the New York Infant Asylum, to the New York Foundling Hospital and to Charity Hospital. He was also consulting physician to the Infants' Hospital and to the Nursery and Child's Hospital. His first paper on a pediatric subject was a "Report of the Post-Mortem Appearances in Eleven Cases of Cholera Infantum," and appeared in 1858. His "Treatise on the Diseases of Infancy and Childhood" first appeared in 1869, and has passed through eight editions, the last being in 1896. It is said that his published papers and articles number 160. Dr. Smith was Clinical Professor of Diseases of Children in Bellevue Hospital Medical College for a period of twenty years. He was a zealous and valuable member of many medical societies, among them the American Pediatric Society, of which he was one of the founders and the second president, was once chairman of the Pediatric Section of the New York Academy of Medicine, and President of the Pediatric Section of the United International Medical Congress. Dr. Smith was very sympathetic and kindly in his dealings with his patients, and usually won their warm and lasting attachment. He

was liberal—too liberal, in the matter of bills and collections, and many of the unscrupulous took advantage of this.

Dr. J. Lewis Smith was brother to Dr. Stephen Smith, Surgeon to Bellevue and St. Vincent's Hospitals, and who wrote a "Manual of the Principles and Practice of Operative Surgery." Dr. Stephen Smith also wrote the surgical portions of the last edition of the "Treatise on Diseases of Infancy and Childhood." Dr. Frederick M. Warner, son-in-law to Dr. J. Lewis Smith, was also a co-laborer in its preparation. He died of typhoid during the preparation of the book. Dr. Smith was very much attached to him and deeply interested in his career and it is said that his death caused a shock from which the aged physician never fairly recovered. For the data in this brief sketch we are largely indebted to the *Archives of Pediatrics*.

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ALBERT RUFUS BAKER, M. D.

This is not an obituary notice. Our zeal to immortalize our friends is in no such a hurry. Fifty years from now will be quite soon enough to suit. On the contrary, the doctor is very much alive—and very much of the doctor is alive—about 225 pounds of him. But why wait till a man is dead before making his acquaintance? How many of us know our contemporaries until we read their obituaries? Certainly there are some facts about a man which for the sake of truth would just as well be untold till his memoir is written. For instance—whether his right lung was more involved than the left or he had any lesions of the heart valves. But the main facts of the doctor's life and his personal appearance are, we take it, of some interest to other doctors who may or may not have seen or known him. The numerous organizations of the medical profession are not kept up for scientific interest alone. They exist at least partly because doctors like to meet each other and make acquaintance. Another proper means of making physicians acquainted with each other is the medical journal—the journal which is alive to everything which interests the profession. THE GAZETTE received many compliments for the fine portraits of the officers of the Ohio State Medical Society, published in the May number, and now we propose presenting

our readers with portraits of the committee of arrangements to whom is due a great deal of the credit for securing the success of that meeting. In the sketches which follow we shall eulogize nobody and boom nobody. We expect neither praise nor blame for our arrangement of the sketches, for what we say or leave unsaid or the way we do it. It is convenient for us so to do and we hope to interest our readers.

A. R. Baker was born in Salem, Clarion County, Pa., March 24, 1858. He received his degree from the Medical Department of Western Reserve University in 1879, and spent the five years following in general practice in his native state. Then after a year or two spent in Europe he settled in Cleveland and engaged in special practice upon the eye, ear, and throat. In the fall of 1885, in company with Dr. Kelley, he established the CLEVELAND MEDICAL GAZETTE, and together they edited and managed the journal for the next ten years. In December of 1885 he was married to Emily Louise Shackleton. They have two children, both boys. Dr. Baker is oculist to the Cleveland General, St. Alexis, and City Hospitals, Professor of Diseases of Eye, Ear and Throat in the Cleveland College of Physicians and Surgeons, member of numerous medical societies, local, state and national. He has written perhaps a hundred papers, essays, lectures, addresses, etc., which have been published in various journals and elsewhere.

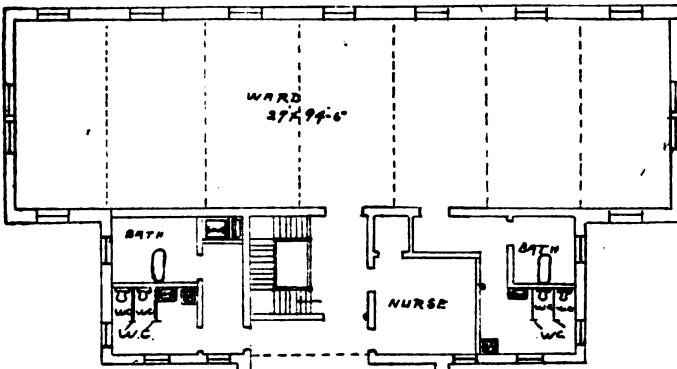
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#### THE NEW HOSPITAL FOR CHILDREN.

We present this month the first floor plan of the new Children's Hospital. It is to be of brick, with sheet iron cornices and slate roof, almost fire-proof, very little wood being used in its construction. The extreme dimensions are 161 by 97 feet, two stories and a basement, excepting the operating amphitheatre, which will be a story and a half in height. It will accommodate 100 patients. The new hospital is to be a part of the Cleveland City Hospital, on Scranton avenue. It will stand in the rear of the male ward wing, that is, the most easterly end of the present hospital building, at a distance of about twenty feet from the old building, and connected to it by a closed



gallery, as seen in the cut. The main entrance will be from Valentine street, by steps up to this gallery. The ambulance entrance will be hidden from the street by this gallery, being near the operating room where the steps show in the cut. It is reached from the street by a driveway which circles around the end of the building, between it and the boiler house, which latter is distant about forty feet from the operating room. The greenhouse is at present located about the same distance away from the large ward of the Children's Hospital. The hospital is to be constructed and equipped upon the most approved plans, according to modern ideas of sanitation. The heating and ventilation will be by a system of indirect radiation and a fan. Everything about the building will be neat and substantial. There will be no gold spittoons nor frescoes by the old masters, for the whole building is to cost only twenty-eight or thirty thousand dollars. Great care will be taken in the arrangement of the operating amphitheatre and the rooms which adjoin and belong to it. These will be used not only for the children's department, for this is to be the main operating room for the whole hospital. The lighting of the operating room, as indeed of the whole hospital, will be nearly perfect. The rooms across the corridor from the operating room are separate, for critical cases. Two of them are completely isolated, to be used for quarantining any case suspected of contagion occurring in the wards. Two small buildings, one for diphtheria and one for scarlet-fever, will be built, entirely separate from the hospital and from each other and a considerable distance in the rear. The hospital grounds are sufficiently ample to give space to a third separate building which is soon to be built. This will comprise a morgue, an autopsy amphitheatre and a pathological laboratory. It really seems as though Cleveland was about to redeem herself in the matter of her City Hospital and its proper adnexa. Director Akers is pushing the work with great zeal and intelligence. The excavation for the hospital is already under way. The labor is being performed by the male inmates of the infirmary and insane departments who are able to work. It is calculated that the new hospital will be ready for occupation about the first of February, 1898.



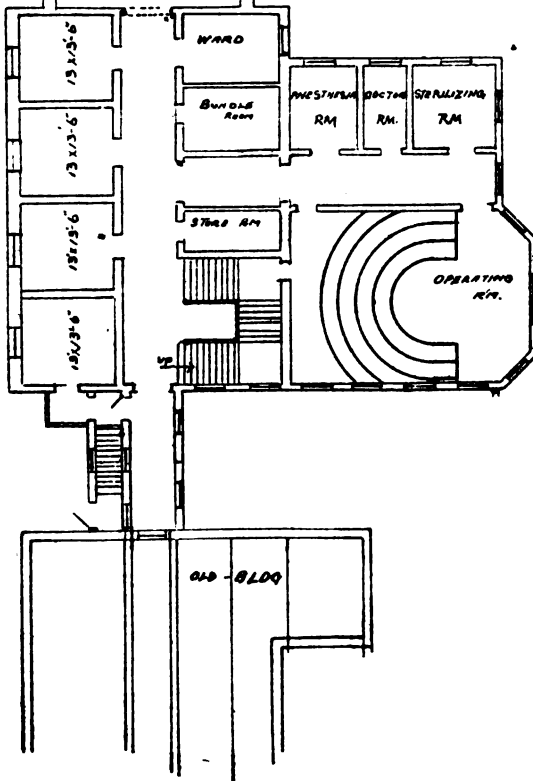
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WARD 29' x 54'

FIRST FLOOR PLAN  
CHILDREN'S HOSPITAL  
FOR THE CITY OF CLEVELAND, O.

SCALE 5 0 5 10 15 20 FEET

John Eisenmann, ARCHT & Eng'r



## Periscope.

### THE BACTERIA OCCURRING IN THE FEMALE GENITAL CANAL AND THEIR RELATION TO ENDOMETRITIS.

Under this heading Gottschalk and Immerwahr have published an interesting article\* of which the following is an abstract.

Micro-organisms are constant in the genital canal of both sick and healthy women. The saying that the vagina in infants is sterile as long as 12 hours after birth is probably not true, since organisms must enter during the first bath. The failure of experiments to demonstrate their presence is probably to be explained by the fact that they are very few in number and require a certain time in order to multiply to such an extent as to be demonstrable in every case.

The normal vagina contains micro-organisms. But this is by no means true of the uterus. Up to the period of the first menstruation, the cervical canal and the uterine cavity are protected from micro-organisms by the mucous plug at the external os and can therefore be regarded as sterile. The first menstruation sweeps away this obstruction and the menstrual blood itself being a good culture medium, a further extension of the organisms must be regarded as possible. From this time on, organisms may be found in the cervical canal and their presence there must not be looked upon as being necessarily pathological.

Stroganoff has lately taken up the cudgel in defense of the view that the point where micro-organisms cease to be found is at the external os. Others place the line considerably higher, indeed as far up as the internal os. Both views are to a certain extent correct. If during the progress of certain physiological phenomena, *e. g.* menstruation, micro-organisms enter the cervix and obtain a foot-hold there without exciting the slightest reaction or inflammation, we cannot look upon such an occurrence as being in the least unphysiological, even if the absence of morbid effect is to be explained as due to the peculiar protective power of the cervical secretion. On the other hand, the results of experiments justify the conclusion that a penetration of the micro-organisms, effected by themselves without artificial aid, above the internal os into the uterine cavity, is beyond the boundary of the physiological. Normally the cavity of the body of the uterus is free from organisms. This sterility may

\* Dr. Sigmund Gottschalk and Dr. Robert Immerwahr: Ueber die im weiblichen Genitalcanale vorkommenden Bakterien in ihrer Beziehung zur Endometritis. Archiv für Gynäkologie No. 50, 3, 1896.

be due to the internal os itself and to the downward movement of the cilia.

But the mere presence of pathogenic bacteria in the uterine cavity is not always to be looked upon as directly pathological. At times they may exist without exciting either local or constitutional symptoms. Nevertheless, in cases of inflammatory affections of the endometrium it is always within the bounds of possibility that the etiological factor may be some micro-organism. Numerous researches in this direction have been made, but, if we except the known forms of specific infection, without much positive result. Doléris referred all cases of endometritis to bacteria as causal agents. Von Winckel also believes that we should divide cases of endometritis according to their etiology rather than to their anatomical features, but admits that for certain forms such a classification, though highly desirable, in view of our present satisfactory methods, is not yet possible. Clinically, excepting for the specific forms, for our differentiation we have to depend mainly upon the peculiarities of the products of inflammations and of the secretions. Only for the fungous endometritis we have learned from Olshausen one sign, namely, the succulence of the vaginal portion. Pain is an altogether uncertain symptom on which to base a diagnosis; and we may say, in general, that clinical symptoms do not give us any reliable index as to the histological forms which may be found. The mere clinical diagnosis of endometritis does not always justify a dilatation and curettement, and we consequently have a large class of cases in which we are shut off from the means of deciding upon the true pathologico-histological condition.

Should v. Winckel be correct and it be possible to recognize for each case of endometritis the causative organism, we may be able to substitute for the greater portion of our present routine empiric procedures a rational treatment. The question may be then proposed,—Is it possible in all or in certain cases of endometritis to find bacteria upon the injured mucous membrane, and can these organisms which are present in certain cases have a causative significance? The authors examined bacteriologically, during two years, 60 cases of endometritis corporis. These were all "fresh" cases, *i. e.*, they had not been previously examined or treated. A routine examination was made in each of a specimen of the secretion from the vagina, the cervix and the fundus, in the order named.

In obtaining the secretions, the vulva and perineum were carefully cleansed with bichlorid. The labia minora being held widely apart a small sterilized milk glass speculum was inserted. Some of the secretion was then

taken by means of a sterile platinum loop from the posterior fornix at a point which had not been touched with the speculum. Cultures were made upon Petri dishes and tubes. Coverslip preparations were also examined.

For obtaining the cervical secretion the vaginal portion of the cervix was carefully cleansed with sublimate, the mucous plug being afterwards removed by means of sterile cotton on a pair of forceps. The secretion was then taken from high up in the cervix by means of a sterile wire. Before taking specimens from the uterine cavity, the cervical canal was thoroughly cleansed by means of cotton wrapped around a sound, the inner wall being wiped with a one per cent. sublimate solution and dried with sterile cotton. A copper dilator followed by a second of larger size was then inserted up to, but not above, the inner os, and allowed to remain a few minutes, so that the inner os was sufficiently dilated to admit the platinum loop without its coming in contact with the cervical canal either on being entered or withdrawn. In this way portions of the secretion from all these three places were obtained practically without admixture.

Out of the 60 cases, in 21, or  $34\frac{1}{2}$  per cent., on first examination the uterine cavity proved to be free from germs. Most of these were cases of fungous endometritis; others, however, were of the catarrhal form, and one was purulent.

In the second and in further examinations of these 21 cases, the secretion remained sterile in two-thirds during the whole course of the observation, which often extended over months.

In 7 cases bacteria were demonstrated during the course of treatment. In 6 of these 7 they were not pathogenic. They consisted mostly of white and gray-white diplococci, also of short thick bacilli. Probably these inhabitants of the vagina were brought into the uterine cavity by intrauterine treatment. Their presence did not militate against the healing of the cases in which they were found. One case in which a pessary had been worn for several months before examination is scarcely to be reckoned. In this grey colonies of diplococci and a few colonies of staphylococci were found in the vagina and cervix, but not in the uterine cavity. The secretion from the vagina showed in addition the diplococcus citreus. One case of endometritis glandularis hyperplastica in a 46 year old, sterile woman showed several colonies of the diplococcus albus and aureus, a grey diplococcus, the staphylococcus pyogenes albus and a very few colonies of the staphylococcus pyogenes aureus. When she came under observation the cervical and fundal secretions showed no organisms by coverslip examina-

tion. She was given one intrauterine application of tinct. iodi and six days later several colonies of the diplococcus albus and aureus were cultivated from the cervical secretion; the fundal secretion remained sterile but contained numerous red blood cells. Three more intrauterine applications were made and the fundal secretion then showed micro-organisms. After about a month dilatation and curetting were performed; culture experiments made with the material obtained showed colonies of medium-sized diplococci, of a grey translucent color. Recovery without reaction. Eleven days after operation the fundal secretion showed numerous greyish-white diplococci. Twenty-two days after operation, along with colonies of diplococcus aureus, it was possible to demonstrate the staphylococcus pyogenes albus and aureus.

This case is of service in demonstrating that (1) the organisms found were not the cause of the endometritis; (2) despite the most careful asepsis, in cases of long continued intrauterine treatment, it is quite possible for micro-organisms to enter the cavity of the fundus.

Thirty-four and one-quarter per cent. of cases, on first examination, showed the uterine cavity to be sterile. This finding agrees with the observations of Döderlein and Bumm, that there are forms of chronic hyperplastic as well as of chronic catarrhal endometritis which are not caused by micro-organisms and which exist independently of their action. Whether this rule applies to cases of purulent endometritis it is impossible to say, although in the single case examined the secretions were sterile.

The cases (39) in which the presence of bacteria was demonstrated at the first examination may be divided into two groups: 1. Those with pus organisms (staphylococci) (a) primary, (b) secondary. 2. Those with non-pathogenic organisms, belonging to the skin, found in vagina and on perineum (diplococci, short bacteria, yeast fungi, sarcinæ, etc.). No streptococci were met with.

I. (a) Staphylococci were found in the secretion from the fundus at the first examination in only seven cases, or eleven per cent.

CASES I. AND II.—The patients complained of exceptionally foul-smelling, purulent and, at times, blood-tinged secretion, which led to the suspicion of a gonorrheal infection. Staphylococci albi were found, but no gonococci. As a matter of fact, the foul smell is lacking in the secretions from a gonorrheal endometritis. From these two cases it may be concluded that a special form of purulent endometritis exists, caused by the staphylococcus pyogenes albus, and characterized clinically by a very foul-smelling discharge of a purulent character, at times tinged with blood.

CASE III.—A young woman who had been married a year and who had had, in the seventh month, a miscarriage, not followed by fever. For eight days before coming under observation she had complained of a copious purulent discharge, with dysuria and sharp pain in lower abdomen. (Cause gonorrhea?) No gonococci found, but numerous colonies of *s. pyogenes aureus* and *albus*.

CASE IV.—Woman of twenty-four, married four months. Complaining for one year of copious discharge and dysmenorrhea. Fundal secretion no longer purulent, but thick and whitish. After four weeks' treatment the staphylococcus aureus, which before had been plentiful, disappeared and the fundal secretion was then found to contain numerous yellowish white colonies of a moderately large diplococcus and several greyish colonies of a short, moderately thick bacillus.

In both these cases there was a great disposition to hemorrhage.

CASE V.—Secundi para, youngest child six months. Since last labor complained of discharge and burning with micturition. Puerperium without fever. On the first examination numerous colonies of *s. albus* were found, but they were very small. Three accidental colonies characterized by a greyish glassy color and consisting of large diplococci. Seventeen days later only two colonies of staphylococci; 14 days later, one day after menstruation, cultures sterile. One week afterwards, all clinical symptoms had disappeared; no discharge. Coverglass preparation negative. On serum-agar plate only a small colony of greyish-white diplococci (accidental). Conception: normal pregnancy.

The cause of the endometritis was the staphylococcus albus. The mild course of the disease, in conjunction with the small form of the staphylococcus, shows, possibly, that it was a special variety of this organism.

CASES VI. AND VII.—The affection dated back to a puerperium with fever; in one case occurring six months, in the other two years before. Copious discharge and pain. The cause of the fever *in puerperio* was the staphylococcus. The cocci, maintaining their seat in the endometrium, had caused and had kept going the endometritis.

The conclusions as to the cause of the endometritis may hold as a general rule in those cases of endometritis of bacterial origin which are consequent upon puerperal infection.

I. (*b*). These four were cases of fresh gonorrheal endometritis with localization in the corpus uteri. The tubes were not implicated. No intra-uterine treatment. Vaginal sublimate douches and expectant and prophylactic

treatment. Gonorrheal nature proven by culture experiments on mixture of agar and fluid from cystoma; later on ox-blood serum-agar and urine-agar. After from four to six weeks, the cultures failed to show gonococci. The discharge had grown scanty and perfectly clear. Staphylococci were then found; in two cases *s. pyogenes albus* only, in numerous colonies; in two cases *s. pyogenes albus* mixed with *s. pyogenes aureus*.

The staphylococci were secondary invaders of the corpus, possibly introduced by coitus, or more probably perhaps with the douches. This shows some danger in the continued use for any length of time of vaginal douches in such cases.

After the course of a gonorrheal infection in the uterine cavity, the endometritis remains irritated and in a condition of feeble resistance, so that it is less able than the normal endometrium to withstand and overcome the attacks of other organisms. Thus an endometritis set up by gonococci may be maintained by staphylococci. We should, therefore, in the treatment of these cases, bear in mind that the purely expectant and prophylactic treatment of the uterine gonorrhea is the better plan, in view of the danger of introducing other micro-organisms during intrauterine treatment, or of carrying the gonococci up further in the uterine cavity and infecting the tubes.

It is important to note that we have never met with the gonococcus and the staphylococcus pyogenes together, at the same time, in the secretion from the corpus. One can expect, then, to find only the staphylococci, should tubal or ovarian abscess occur through such a secondary infection. That is to say, the case is not a case of *mixed*, but one of *secondary* infection, from which by itself one is not justified in saying that a gonorrheal infection must have preceded.

II. Of the 28 cases in which non-pathogenic micro-organisms were found, the majority were instances of chronic catarrhal endometritis.

Among the various sorts of skin-organisms found are the following: The forms were most frequently diplococci, more rarely bacilli and other micro-organisms.

1. A diplococcus of medium size; white colonies with brownish center, of thick, slimy consistence; non-liquefiers of gelatine. The same diplococcus is found to be almost constant on the human skin.

2. Diplococcus albicans tardissimus (Bumm); does not liquefy gelatine; grows on agar slowly as superficial, thin specks, moist, greyish-white, with worm-eaten or jagged contours.

3. Diplococcus aureus; does not liquefy gelatine;



forms small golden-yellow colonies. This organism was less frequently found.

5. *Diplococcus citreus conglomeratus* (Bumm); liquefies gelatine slowly; forms colonies which creep out in tongue-like forms of, first, lemon-yellow, but later changing to a brownish color.

6. *Diplococcus albicans amplius* (Bumm); resembling the gonococcus, but decidedly larger; liquefies gelatine slowly; superficial, raised, greyish-white colonies.

7. *Diplococcus* of medium size; yellowish-white, round, granular colonies; does not liquefy gelatine.

8. Short, moderately thick bacillus. Colonies milk white.

9. Short, very thin, delicate bacillus. Colonies of white color.

10. Short thick bacillus. Colonies, milk white.

11. Short thick bacillus. Colonies golden yellow; 8-11 included do not liquefy gelatine.

12. Yellow sarcina—*sarcina candida* of Reinke.

13. White sarcina—*sarcina alba*.

14. White yeast-fungus.

15. Rose-colored yeast-fungus.

In half of these 28 cases only two or three kinds of organisms were present together, but in the remaining half many kinds existed at the same time. It was impossible to determine that any one bacterium characterized more particularly any one form of the disease. In two cases organisms belonging to the yeast family were found. In this connection the two cases of peculiarly persistent and troublesome endometritis due to yeast cells reported from Sanger's clinic by Colpe are of interest.

CASE I.—Twenty-seven years. Married two years. Sterile. Phthisical habitus. Complaints of profuse discharge, backache and pain in lower abdomen. Cough. Little expectoration. Slight apical catarrh. Examination showed uterus free, retroflexed, somewhat enlarged and sensitive to pressure. From external os oozed an exceptionally tough, stringy discharge of whitish-green color; reaction neutral to acid. Bleeding occurs easily.

On gelatine plates, secretion from fundus showed rosy-red budding organisms in separate colonies; no other micro-organisms.

CASE II.—Twenty-three years, single. Endometritis for two years. Same complaints as Case I. Periods copious, lasting eight days. Vagina narrow, portio conical, orific. ext. constricted, uterus anteflexed, somewhat large, freely movable, exceptionally sensitive. R. ovary somewhat enlarged and sensitive to pressure. An inflam-

matory band in Douglas's pouch. Portio moderately reddened. From external os a cheesy secretion. Cervical secretion acid. Fundal secretion on gelatine plate shows several white yeast-cell colonies. Cervical secretion on agar, small grey, whitish colonies of diplococci. It is probable that the fungi were not the originating cause of the endometritis, but probably kept it going. The disappearance of the normal alkaline reaction of the uterine secretion is surely to be explained by fermentative processes.

The micro-organisms described here were found deep in the uterine glands but never in the tissues. These bacteria, unlike the pathogenic variety, are not able to make their way into the tissues. These observations are quite at variance with those of Laplace. The question whether or not these non-pathogenic organisms can act as the originating cause of an endometritis cannot be answered positively. Gottschalk, several years ago, made pure cultures of these various organisms and inoculated the male urethra, always with negative results. Clinical experience bears this out. The husbands of these cases (many of them were married women) did not contract any urethral disease. By accustoming herself to great cleanliness of the external genitalia, by means of washing, especially at the time of menses, and at other times by hip-baths, the patient may do much for herself in a prophylactic way. The tincture of iodine applied with Playfair's sound appears to be by far the best anti-parasitic agent in these cases.

Conception is not rendered more difficult by the presence of these micro-organisms. Pregnancy frequently occurred directly after the treatment and ran, on the whole, a normal course, although the cervical secretion still contained organisms. In one case a very rapid increase of grey-white diplococci in the cervical canal took place apparently as a consequence of the hyperemia due to pregnancy. The cervical secretion was exceedingly abundant, thick, creamy and of acid reaction. The neighborhood of the anterior lip appeared "eaten out." Later, the secretion became thinner, milky and foamy. The diplococci were longish and could almost be designated as short bacilli. The uterus was very sensitive to pressure and subjectively the woman complained of pain in the right side, towards which the uterus lay. The diplococci were so numerous that they may have kept up the endometritis from their number alone. At  $5\frac{1}{2}$  months, after several days of pain, spontaneous abortion occurred. Five weeks later the woman presented herself with a right-sided parametric exudate. The discharge had almost disappeared, but in the cervical secretion the

same micro-organisms were present, though in much smaller numbers.

What is the effect of menstruation upon the micro-organisms in the endometrium? During the flow, if the parts are kept clean and the blood is promptly emptied from the vagina, the uterus will sometimes become sterile. During menstruation it may be well to use mild disinfecting douches several times daily, and the underclothing must be changed every day. If the menstrual blood is allowed to stagnate in the vagina it forms an excellent culture medium and the organisms rapidly multiply and a re-invasion of the uterus occurs. Two cases of exfoliative endometritis were examined. Both showed a sterile fundal secretion. It would appear that endometritis exfoliativa is neither caused nor kept up by bacteria.

In two cases of endometritis hemorrhagica following influenza it was not possible to demonstrate any influenza bacilli in the endometrium or its secretions. It must be concluded that the condition was caused by the toxins produced by the organisms and circulating in the blood and not by the organisms themselves. Similar results have been noted in cholera cases.

The few examinations up to the present time do not justify us in speaking of a "specific" endometritis in cases of acute infectious diseases. Even in syphilis, a specific infection has, up to the present, not been demonstrated.

Gonorrheal, septic and tubercular endometritides are specific. Possibly, as Bumm thinks, we may add to these an endometritis diphtheritica caused by the Löffler bacillus.

H. R.

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### **Among Our Exchanges.**

*Appendicitis* continues to be strongly in evidence in the medical journals and a bone of contention between the physician and the surgeon, but the surgeons are, many of them, more ready than formerly to concede that there may be cases of appendicitis where operation is not indicated, while the physician, in his turn, is more prompt to recognize those symptoms which go to indicate that the case is surgical rather than medical. In a discussion before the Kings County Medical Society, DR. A. J. C. SKENE<sup>1</sup> called attention to an important point regarding the diagnosis. In acute congestion of the right tube and ovary, with swelling, and associated with varicose veins of the broad ligament, the pain, the points of tenderness and the general symptoms are likely to mislead, so close-

<sup>1</sup> *Brooklyn Med. Jour.*, Apr., '97.

ly do they correspond with those of appendicitis. If, however, the patient be placed in the Trendelenberg position with her clothing loose, and allowed to remain there a short time, the fluctuating mass or tumor disappears. But the condition which has most frequently led the diagnostician astray is *catarrhal inflammation of the right ureter*, in which the patient has occasional pain in the region of the appendix. The condition of the urine should be always inquired into. If there be cystitis, tenderness along the tract of the ureter when the pain is at its height; if there be a burning pain, becoming acute at times and extending up to the kidney; if the severe pain subside abruptly and immediately after a discharge of a small mass of mucus which is sometimes tinged with blood—we have the best of evidence that the trouble is in the ureter, that the pain and tenderness has been caused by an accumulation of thick mucus which has blocked the ureter until forced out by the pressure of retained urine in the upper pail of the ureter and the pelvis of the kidney. DR. J. CHRIS. LANGE maintains<sup>2</sup> that the question of operation, whether in *primary* or *recurrent appendicitis*, is to be largely judged by the indications in the individual case. If there be no evidence of improvement in from five to eight days; if at that time the temperature in rectum or vagina remains a degree above that in the axilla, the case should be classed as a surgical one, even though there be no symptoms immediately threatening life. Evidence is accumulating tending to show that in many cases *appendicitis* is only a localized *visceral rheumatism*—an internal *puerpurea rheumatica*. Cases of this character are reported by DR. JAMES S. CHENOWITH, of Louisville, Ky.<sup>3</sup> Two, both members of families where the rheumatic diathesis was well marked, are of special interest. A boy of 12 had done an unusually hard day's work in a milk depot, handling heavy cans, etc., and while overheated had drunk a quantity of cold milk just before he went home. Next morning he awoke nauseated and with a sore throat. A little later a large number of erythematous wheals appeared over the body, and almost simultaneously he complained of violent pain in the region of the appendix. He was visited at noon and a diagnosis of appendicitis made. Pulse was 90; temperature, 100.2 degrees F. No remission of symptoms following the action of salines and an enema, he was operated on at 9 P. M. the same day. The appendix was found pointing downward and partially overlapped by the cecum; its walls were hyperplastic and quite hard from dense infiltration; the meso-appendix was thickened and

<sup>2</sup> *Pittsburg Med. Review*, Mar., '97.

<sup>3</sup> *Mathews' Quarterly Jour. of Rectal and Gastro-Intestinal Diseases*, Apr., '97.

extended almost to the tip of the appendix, the distal third of the appendix and its meso-appendix presented a dark, somewhat mottled appearance from extravasation of blood into this hyperplastic tissue; the lumen was pervious, though somewhat compressed and contained only a little mucoid material and soft fecal matter. There was no torsion nor evidence of mechanical disturbance of the local circulation. The second case, likewise a boy, with a markedly rheumatic heredity and liable to attacks of nose-bleed, tonsilitis, colic and urticaria, was taken with severe colic and vomiting. Pulse, 100 degrees; temperature, 99.2 degrees F.; abdomen not distended; pain most intense under the border of the ribs on the left side and in the right iliac region; tender on pressure and right rectus rigid. No cause could be assigned for the attack. Salines were rejected, calomel,  $1\frac{1}{2}$  grains, was retained, an enema of glycerine and water brought away only a little gas. Five hours later began to cough and have nose-bleed. Twenty-two hours later the abdomen was increasingly tender in the right iliac region, he had vomited several times and his bowels had not moved. The abdomen was opened and the appendix immediately presented. It was three inches long; its meso-appendix extending about half its length; it was tensely distended and contained a recent blood clot and some muco-purulent fluid with fecal odor; there had been a hemorrhage into its walls, which were black in color and appeared almost on the verge of rupture; there was no evidence of torsion. Stitches were removed on the eighth day. On the ninth, following some little error in diet, he had recurrence of severe abdominal pain, involving all the colon except where the appendix had been. This was followed by hysteria and every phase of purpura rheumatica; pain and edema in muscles and joints; urticarine lesions of every sort; bleeding from nose, stomach, intestine (always preceded by a severe colic) and kidney; and a purpuric eruption on the legs. He finally recovered. The practitioner of medicine might feel prompted to query why these cases were not put for twenty-four hours, at least, on a vigorous anti-rheumatic treatment—say full doses of hyposulphite of soda and Rochelle salt by enema—but as the practitioner of operative surgery isn't expected to know much about therapeutics, it is hardly fair to hint a criticism. And, by the way, the whilom friction between the physician and the surgeon is likely, ere many decades, to be settled to the complete satisfaction of both. With the facilities given in the post-graduate schools to post up rapidly in both diagnosis and technique, the physician will become less hesitant about trying his hand at operative procedures. He will go to the

bedside, as of old, as a physician and surgeon, able to tell when an operation is likely to be necessary, able to determine when it is necessary, and able to do the operation when it becomes necessary—men will become more and more weary of making reputations for other men at the expense of their own.

If subsequent experiment shall confirm the results obtained by DR. LUDWIG BREMER, of St. Louis,<sup>4</sup> we have a rapid and reasonably sure method of diagnosing *diabetes mellitus*, even where the sugar has temporarily disappeared and discriminating true diabetes from transitory glycosuria, when as often happens in the latter case, the proportion of sugar is relatively large. The test is based upon the fact that normal urine dissolves eosin readily while gentian-violet will dissolve but slowly, if at all; while upon diabetic urine gentian-violet soon forms a stratum of a rich bluish-violet color, from which, if left undisturbed, preferably in a warm atmosphere, blue or violet-stained strands of various thickness will be seen to project into the fluid underneath the film. These strands show more plainly by contrast when the body of the urine is stained with eosin, and if the urine be gently shaken it will be found that the strands, or layer of gentian-stained fluid is indisposed to mix with the eosin-stained portion—a well-defined line of demarkation being formed between them. The test-powder is made by mixing two parts of eosin in fine powder (bluish eosin is better than the yellowish) with three parts of gentian-violet, also in fine powder. Take two test-tubes having the same calibre and thickness of walls; put in one tube two inches of normal urine and in the other the same amount of the suspected urine. Warm the urine, to obtain a quicker result, by exposing the bottoms of both tubes together to a gas or alcohol flame, or, better, by dipping both tubes up to the surface level of their contents into water heated up to nearly the boiling point, the object being to have the fluid in both tubes approximately the same temperature. A slight shaking facilitates solution. Before the normal urine shows anything but the eosin stain, a deep blue or purple cloud will have formed near the surface of the diabetic urine. About one-fortieth to one-thirtieth of a gram of the test powder is to be added to the urine in each tube. The test is not reliable for urines below 1.013, for urines of low specific gravity, including that of diabetes insipidus, dissolve gentian-violet, but whenever a urine above 1.015 gives a positive reaction, i. e., shows the blue color, it is a case of diabetes. The urine of temporary glycosuria reacts like normal urine. The use of thyroid extract in the

<sup>4</sup> N. Y. Med. Jour., Mar. 13, '97.

treatment of myxedema and allied affections has become so well established that further cases have almost ceased to interest, but DR. HENRY ALFRED ROBBINS, of Washington, D. C.,<sup>5</sup> reports a case of *Hodgkin's disease*, apparently in articulo mortis, which recovered under the administration of thyroid extract. The glands about the patient's neck were large as goose-eggs; the trachea was displaced toward the left, the right axilla was distended with swollen glands; pulse and respiration were rapid and her face was covered with a clammy sweat. To all appearance it was a hopeless case. She was put on thyroid extract, beginning on small doses. In two weeks she was about the house, and in a month she was practically well.

### New Books.

A HANDBOOK OF MEDICAL CLIMATOLOGY, Embodying its Principles and Therapeutic Application, with Scientific Data of the Chief Health Resorts of the World. By S. Edwin Solly, M. D., M. R. C. S., late President of the American Climatological Association. In one octavo volume of 470 pages, with engravings and colored plates. Cloth, \$4.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1897.

Upon examination of the book before us, it appears more fully to meet the wants of physician and patient than any work on the subject we have seen hitherto. Certainly the data available at present are more complete than ever was the case before, so that the author has more material with which to work. The governments of European countries have, for the most part, long since recognized the benefit of ascertaining and publishing the qualities of climate of such localities within their borders as present advantages to the health seeker; and now the United States Government has completed observations upon the climatic conditions of almost every portion of our country. Intelligent physicians have added their experiences, and of these data Dr. Solly has availed himself fully, and having for more than a quarter of a century given his attention to climatology, he has systematized the subject and given definite principles to guide us. We are glad he has given so much more space to American than to foreign climates, for various reasons. The subject had been more worked over in the older countries and facts pretty definitely settled; again a knowledge of the climate of this country is more important to us who live here when we would advise our patients; and lastly we would be glad to see the fleet of American health-

<sup>5</sup> *Maryland Med. Jour.*, Apr. 17, '97.

seekers who, ballasted with good United States dollars, yearly sail over into Europe and come back without ballast, make a trip somewhere within our own borders. We have all climates, from the worst to the best, to satisfy the most fastidious. It is time that every American physician posted himself upon the climates of this country, so that he could intelligently advise his patients in this most important matter, and we know of no better means of posting up on the subject than a study of Dr. Solly's book.

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A TEXT-BOOK OF DISEASES OF WOMEN. By Charles B. Penrose, M. D., Ph. D., Professor of Gynecology in the University of Pennsylvania, Surgeon to the Gynceean Hospital, Philadelphia. Illustrated. 529 pages, cloth; \$3.50 net. Philadelphia: W. B. Saunders. Agent for Cleveland and vicinity, Galbraith: New England Building.

Notwithstanding the hard times, Mr. Saunders goes right on publishing book after book. It is encouraging to see that the profession evidently still has money enough to buy books. This book proves to be what the title says—a "*text-book of diseases of women*"—as taught at the present day. It is not a history of gynecology, and the reader who wants to look up the origin of old theories or obsolete methods of treatment will not find it here. It is not a text-book of anatomy, as the author seems to expect that the reader will acquaint himself with the anatomy of woman from the general text-books on that subject. Even physiology and general pathology have been omitted. And the book is not a catalogue of surgical instruments and operating tables. It is a systematic, clear and practical text-book especially suited to the needs of the medical student. The practitioner who may wish to acquaint himself with the present teaching of gynecology, shorn of all antedeluvianism, will find it here very briefly yet thoroughly presented.

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CLINICAL LESSONS ON NERVOUS DISEASES. By S. Weir Mitchell, M. D., LL. D., Edin., Member of the National Academy of Sciences, Honorary Fellow of the Royal Medico-Chirurgical Society of London. Handsome 12mo., 299 pages, with illustrations and two colored plates. Cloth, \$2.50. Lea Brothers & Co., Publishers, Philadelphia and New York, 1897.

As an authority on neurology, Dr. Mitchell stands with a very few in the front rank, and as a clinical teacher he has no superior. These clinical lessons are sufficient proof of the breadth of his knowledge of the subject, of all branches of science bearing upon it, and of his sagacity as a practical clinician. They also reveal the



charms of style which have won fame for the author in the literary world. A single lesson—that on the treatment of sciatica—will fully reward any physician for procuring and perusing it. We can only mention the subjects of the eighteen lessons. Hysteria; psychic anesthesia for touch; psychic anosmia; psychic blindness. Recurrent melancholia; seasonal melancholia; melancholia arising out of menstruation; inter-menstrual melancholia; melancholia arising out of dreams or originating in the post dormitium; melancholia during digestion. Irregularly recurrent melancholia with short intervals and not in apparent relation to function. Some disorders of sleep. Choreoid movements in an adult male, probably of hysterical origin; unusual hysterical movements in a child; hysterical myoclonus. Subjective false sensations of cold. Motor ataxia in a child of three years with retained muscle reflexes; pernicious anemia with locomotor ataxia and hysteria. Post-hemiplegic pain; pre-hemiplegic pain; post-hemiplegic disease of joints; post-hemiplegic nodes. The treatment of sciatica. Erythromelalgia; red neuralgia of the extremities; vaso motor neuralgia of the extremities; terminal neuritis. Notes on surface temperature as affected by posture of limbs. Three cases of remarkable spinal anterior curvature, with mental aberration. Concerning the history of the discovery of reflex ocular neuroses, and the extent to which these reflexes obtain. Why wrong reference of sensations of pain. Pseudo cyesis; spurious pregnancy; hysterical contractures. Rotary movements in the feeble-minded.

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TETHERED TRUANTS: BEING ESSAYS, SKETCHES AND POEMS, by W. C. Cooper, M. D.

Mr. Huxley said that the intellect of the liberally educated man should be able to "spin the gossamers as well as forge the anchors of the mind," and he might have added that oftentimes—not always—the intellect which is capable of spinning the finest gossamers is the one which is capable of forging the heaviest anchors. Evidently when writing most of these essays, sketches and poems, Dr. Cooper was in the mood for spinning gossamers; and yet now and again he has forged a thought which goes away down deep and grapples at the bottom of things. We have not the space if we had the judgment to enter into the merits of his work. The author seems to have such a ready flow of language that at times it sweeps past his critical taste and submerges the whole subject in a spray of words. While he evidently, as he says, emulates his friend, James Whitcomb Riley, the best of his

verse is not that in dialect. When he writes in the vernacular, which is supposed to flourish unrestrained in Indiana, he fairly out Rileys Riley and all Hoosierdom. Possibly this remark will cause the author to class us with those critics whom he so scorns as trammelled by the "edicts of unpoetic, stilted and self-absorbed classicists." But there are edicts beyond the making even of the classicists, and much beyond our humble self, which decide what shall appeal to our esthetic sense. We require no authority to prevent us from admiring a sixth finger on the hand of the Venus dei Medici or a supernumerary foot either upon Powers' Greek Slave, or in the lines of the modern "heretical" poet. This is the worst we have to say about Dr. Cooper's Truants. To say the best that they deserve would take a great deal longer. Many of them, if published over the name of Mark Twain or Bob Burdette or Whitcomb Riley, would never lead the reader to suspect they were written by neither of those notables, but by a Buckeye doctor living at Cleves.

They are fanciful and funny, they are wise and witty, they are tuneful and true. They sparkle with entertaining brightness. An hour's perusal will rest you and refresh you and do you more good than an evening at the concert or the theatre, and it will last more evenings than one. Let the reader read and enjoy the book for himself.

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MARGINS. COLLECTED POEMS. By Francis Brooks. Chicago: Searle & Gorton.

We have not the pleasure of an acquaintance with this author, either personally or by Polks' Directory. We do not even know whether he is a physician, but have a faint impression that somebody said that he is. If so, he has entirely laid aside his professional air and deodorized his clothes before coming on the stage as a poet. We do not even know whether he has a permanent ravine ground somewhere or wanders continually. One would imagine from his poetry that he is in some part of the country where the scenery is grand perhaps, what there is of it, but it's rather desolate and not many people live there and he's lonesome and half homesick. There seems to be a prairie-like far-awayness about it, with a yearning as from hunger and thirst. Perhaps he's in Kansas and the crop hasn't been good, and the "Prohibs" are too vigilant. This supposition rather tallies with his pessimistic expressions upon the state of the country.

"Cursed inebriate nation  
Lo! where she wallows in gold;  
Drunk with the dollar's damnation,  
Withered and sottishly old."

Cheer up! My good fellow! Cheer up!  
His Populistic tendencies are further shown by the  
song beginning:

"Ye sons of toil, awake!  
Your bondage break,  
Your children free;  
Created by your hands  
Your tyrant stands,  
Plutocracy."

The title of the book is misleading. One takes the  
author to be a dealer in wheat, perhaps, but on looking  
inside we find that he proposes to treat of

"Margins of the mere and moor,  
Margins of the sea by shell  
Convolved \* \* \* \* \*  
\* \* \* \* \*  
Margins of the woods when spring,  
Joyous from the shadowed depths,  
Smiles in every violet;  
\* \* \* \* \*  
Margins of life, pure infancy  
And serene old age \* \* \*

Seriously, a neat and pretty little book, in thoughts  
and words, and binding.

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#### PAMPHLETS RECEIVED.

A CLINICAL LECTURE ON A CASE OF SUPPURATIVE PERITONITIS. By  
Edmund Owen, F. R. C. S. From the *Clinical Journal*.

BULLET WOUNDS OF THE ABDOMEN. By W. E. Parker, M. D., New  
Orleans. From Transactions of the Southern Surgical and Gynecological  
Association, 1896.

THE TREATMENT OF COMPLICATED ULCERS OF THE CORNEA. By Clar-  
ence A. Veasey, A. M., M. D. From *Therapeutic Gazette*.

THE RELATION OF THE SCIENCE OF MEDICINE TO PUBLIC SCHOOL EDU-  
CATION. By John Puntton, M. D. Published by request of the Tri-State  
Medical Society.

THE PROGNOSIS AND TREATMENT OF ACUTE GENERAL PERITONITIS. By  
Robert Abbé, M. D. From *Medical News*.

THE APPENDIX "IN THE INTERVAL." A new method of studying its  
Pathology. By Robert Abbé, M. D. From *Medical Record*.

SURGICAL HINTS FOR THE SURGEON AND GENERAL PRACTITIONER. By  
Howard Lilienthal, M. D. International Journal of Surgery Co., 1897.  
Price, 25 cents.

VENTRAL HERNIA RESULTING AFTER ABDOMINAL SECTION, AND ITS  
TREATMENT. By Andrew F. Currier, M. D. From *Annals of Gynecology  
and Pediatrics*.

THE POSITION OR POSTURE OF THE PATIENT DURING PARTURITION, WITH SPECIAL REFERENCE TO THE MERITS OF THE WALCHER POSITION. By Andrew F. Cuttier, M. D. From *Medical News*.

BROOKLYN EYE AND EAR HOSPITAL. REPORT OF SPECIAL COMMITTEE ON THE ABUSE OF THE CLINIC. Issued by the Board of Directors.

THE STANDARD OF MEDICAL EDUCATION. The address of the retiring President, delivered at the regular Annual Meeting of the Association of American Medical Colleges, Philadelphia, June 1, 1897. By J. M. Bodine, M. D. From *American Practitioner and News*.

## Correspondence.

"WEDGE HILL," LANDOUR,  
NORTH WEST PROVINCE, INDIA, }  
May 17, 1897.

*My dear Dr. Kelley:*

For weeks—and I can almost say for months—I have been trying to find the time to write you. I am having a change of pundits (teachers) just now, and as I have a day or two vacation I shall try to use it in a profitable way.

When the CLEVELAND MEDICAL GAZETTE reached me a day or two ago, I felt reproached that I had not written sooner.

I reached India December 27th and Mahoba, my India home, January 2d. On the following Monday, January 4th, I took charge of the dispensary work as it existed at that time. When the senior missionary of our station asked me to begin the work, I felt as though I could not; but before a week was gone I was enjoying it thoroughly.

The great majority of cases only needed care and attention, with some drugs added, of course.

So far, my work almost altogether has been with the children of our orphanage. We have more than sixty permanently, and are taking in new ones all the time and sending them to other missions. These new ones have always required the greatest care. Often they would come to us in a half-starved condition, and we must be so very careful of the diet.

There was one girl of about twelve years, who seemed to have nearly all the symptoms of pneumonia, with dysentery added. She had such a distressed look it was pitiable; but such children nearly all have that expression of distress. I made her as easy and comfortable as possible, was most careful of what she ate. Once or twice she threw the food away or refused to eat because I would not give her just what she wanted. In two weeks she seemed well, and before she went away I could see that she was gaining flesh.

I must tell you of a scalp case. A girl came with her head looking as though it was covered with a thick whitewash. We had one of the native women wash it, and a part of the plaster came off, leaving that part of the scalp almost raw, if I can use that word, and the odor was almost unbearable. Then I took her in charge. She still had some pediculi. I wrapped her head in a moist dressing of bichlorid and dressed it that way for three days, and in that time nearly all the whitewash came off and the animals were all dead. After that I washed it carefully, and in about two weeks the head seemed well. She was perfectly bald at first, but afterwards the little hairs sprouted all over her scalp.

So many of these children have large abdomens, I think it must come from the amount of raw, green fruit they eat. Sometimes they are obliged to live on such food for weeks and months at a time. I always think of what you used to say in the dispensary—"Here is another potato belly"—but they would be very fortunate, often, if they could have potatoes, even.

There is a fruit here called the bear. It is about the size of a medium plum, and about as poor eating as I can imagine. One evening I was taking a walk with one of the other missionaries, and we came upon a mother and three children living in an old summer-house, and all they then had to eat were the kernels from the seed of this bear fruit. It is needless to say that we gave her some grain, even at the risk of making paupers of them. All through my college course (literary, I mean,) I was taught that we must not make paupers. It is a very fine thing in theory, but quite another in practice. All the place that family had to sleep was in an empty ditch by the side of the road, and their clothes were rags. She (the mother) said the father had gone to the bazaar to beg; that he had become too much reduced to work, and I doubt if he could find work. The rains have been withheld so long and the crops have been so poor that the farmers have been obliged to sell their implements for money to support their families, and they are without means to carry on work. I often think of Dr. Ohlmacher's saying, that it could be no worse here than there. But I think "a child's first right is to be well born," and I verily believe that the light of the Gospel has saved us from this, and if that is true have we a right to withhold it from these people?

The children in this region have sore mouths and eyes, more or less all the time, and during the last hot season they had the fearful cancrum oris. All the children died that had it. It came in the hot season, before I came. I have a great deal of trouble with ears—pus in

them of a bad-smelling kind. One girl seemed to be filled with pus, which came out wherever it could find an orifice. She was much afflicted with boils formerly. I washed a dead fly out of her ear quite frequently.

I tried to get peroxide of hydrogen for her, but I could not find it in the druggists' shops. There are several things we have at home which it is difficult to get here. Frequently girls of ten or twelve years have leucorrhea.

One father brought his little boy to me much emaciated and fretful, having more or less diarrhea. He had been fed opium when quite small. I had little hopes for him, but he gained very rapidly. I think the careful feeding did much for him. They were feeding him at all times in the day. Contrary to the usual opinion, I believe these women or girls do not menstruate any earlier than they do at home. That has been our experience with the girls of the orphanage.

I am not at Mahoba now. I came up into the Himalayas about April 1st. We always spend the first hot season here, learning the language. It is never very warm up here, and the climate is delightful.

We had an epidemic of measles just when I left. There were twenty children down at once. There is no physician in Mahoba, only a hospital assistant—native. The worst case I had was a broken arm—both bones broken just above the wrist, the ulna pushing out. I have so little to do with, I hope to have a real dispensary in another year and the things necessary to carry on the work as I should. Very sincerely yours,

ROSA LEE OXER.

### **Notes and Comments.**

**A Serious Loss** has been sustained by the profession in the death of Dr. William T. Lusk, of New York.

**Dr. Robert T. Tarr** has removed to 1612 Broadway.

**Dr. John Perrier** has gone to attend the British Medical Association in Montreal, and visit old friends in that city.

**Dr. M. Rosenwasser** has been taking a month's rest on the shore of the Atlantic.

**Dr. and Mrs. Dudley P. Allen** have gone to Alaska on a six weeks' pleasure trip.

**Monthly Report of Ohio State Hospital at Cleveland:** Inmates June 15th, 1,015; admitted during month, 37; discharged, 12; inmates July 15th, 1,040. Of those discharged: 7 recovered, 3 died and 2 improved.

**Dr. L. S. Ebright** has been notified of his appointment as postmaster at Akron.

**Dr. Wm. H. Humiston** is absent on a trip down the St. Lawrence. He will attend the meeting of the B. M. A.

**Huron County's New Board of Pension Examiners** elected Dr. D. H. Young, Jr., of Chicago Junction, President, and Dr. A. L. Osborn, of Norwalk, Secretary. The third member is Dr. McElhinney, of New London.

**Dr. W. J. Esch** has returned from an outing on the beach of old Erie, at Huron.

**A Striking Description of Pasteur** is given by Mrs. Percy Frankland in the current number of *Good Words*: "Weary, traversed with deep lines, his face and beard both white, his hair still thick and nearly always covered with a black cap, the grand forehead wrinkled, seamed with scars of genius, the mouth slightly drawn by paralysis, but full of kindness, as expressive in pity for the sufferings of others, as indifferent to personal pain, and above the living thought which still flashes from the eyes beneath the deep shadow of the brow—this is Pasteur."

It has been suggested by a logician of "The New School" that a proper remedy for the cure of diabetes is extract of the sweet pea. Great is the law, *similia similibus curantur*.

**The Plans of the New Children's Department of the City Hospital** are completed, and the work of excavation is under way.

**Dr. J. Greig Smith**, the distinguished English abdominal surgeon and author, is dead.

**Do Your Duty.** Have you written to the Congressman from your district telling him why Senate bill 1,063 should not become a law? Or have you interviewed him personally to express your emphatic objection against legislation restricting animal experimentation? Or have you detached the folder prepared for the purpose in the June number of the GAZETTE, signed your name to it and mailed it to your Congressman? If you have not taken an active part in the fight against this bill you have neglected your duty to the profession and to the people. Do your duty without further delay.

**Chicago as a Health Resort.** This is the title of an article by Dr. John A. Robison, in a recent number of the *North American Practitioner*, in which he claims that Cook County has a lower death rate from consumption than adjacent counties of Wisconsin and Illinois, and in fact

lacks but a few points of being equal in salubrity to portions of the country which have usually borne a superior reputation. This reminds us of the story of the traveler who stopped at a stage ranch on the great American Desert. The ranch-keeper was dilating on the advantages of the country, claiming that all that was lacking to make it pleasant to live in was "plenty of water and good company." "Pshaw!" says the disgusted traveler, "that's all they lack in h—ll!"

However, as Dr. Robison says, there might be some advantage in having a sanitarium for those unfortunates who have to live in Chicago—especially if they build it outside the city.

**The Press and the Propagation of Crime.** At the Congress of Criminal Anthropology recently held at Geneva, Dr. Aubry made some remarks on this important question (*Lancet—Am. Pract. and News*). In his opinion the press is, unfortunately, of the greatest use to those who are studying the methods of criminal proceedings. The detailed accounts of trials teach malefactors all the weak points of law and all the best methods of avoiding justice, and by a little patient study an ordinary criminal of little or no originality is able to educate himself by means of the experiences of his less fortunate brethren. As Dr. Aubry says: "The newspaper admirably points out to clever people how they may succeed in walking without risk on the margin of the Criminal Code and how they may avoid or circumvent some dangerous clause. There is also another side of the question, and that is the effects which criminal details produce on those whose nervous systems are unstable; they may naturally have no tendency to crime at all, but continually reading about it may easily excite them and prove a dangerous incentive to many bad deeds which would otherwise have been unthought of. It is most desirable that the details of criminal reports should be judiciously cut down before publication."

**The Use of Sage.** In years gone by, says the *Medical Press and Circular*, an infusion of the leaves of sage (*salvia officinalis*) was highly appreciated in certain parts of Europe as a means of combating the night sweats of phthisical patients, but its use has now given place to that of atropine, agaricine, and other modern anti-sudorifica. According to Krahn, the oblivion into which sage has fallen is undeserved, for in some thirty-eight cases of hyperidrosis in which he employed this remedy success rewarded his experiment in all but two. Most of his patients were tuberculous, but some of them were suffering



from articular rheumatism, leukaemia and typhoid-fever. In eighteen of the cases the excessive perspiration forthwith disappeared and in the remainder the effects were markedly favorable. He prescribed the sage at first in the form of an infusion containing about forty grains of leaves to a pint of boiling water, of which the patient took a cupful three times a day, but he found subsequently that the tincture was more active.

**Medical Fees and Multi-Millionaires.** It is said (*Medical Record*) that since John W. Mackay recently refused to pay the bill of the physicians who extracted the assassin's bullet from his body, amounting to \$12,500, he has paid an attorney bill of \$26,160 for taking a will of which he was executor through the probate court—an automatic procedure requiring neither skill, great ability, learning, nor judgment.

The California press was unanimous in condemning the physicians for rendering so large a bill, and in congratulating the lawyer upon receiving a handsome fee. We have only ourselves to thank for the way the public look upon these matters. Lawyers often think better of us than we have thought of ourselves, to judge from the excitement which is occasioned when a physician dares assert his rightful claims.

**A Late Fad in Medicine,** says the *Medical and Surgical Reporter*, seems to be the decrying of the use of drugs, and it is really somewhat unusual in this day to find a practitioner of large experience proclaiming boldly his belief in the efficacy of drugs, since this may lay him open to the charge of not being fully up with the developments of modern medical science. Dr. William Gowers, of London, in a recent article in the *Medical Record*, calls attention to the fact that a great many of the non-medicinal measures for combating human ills, which are now so frequently recommended, cannot readily be used by the every-day practitioner. The patients whom he serves cannot afford to take rest, to travel, to spend two months at some "cure," to inhale oxygen, to undergo massage or elaborate methods of hydrotherapeutics or of mechanical therapeutics. They cannot afford even, in many cases, the dietaries which are often so highly approved; and, on account of their daily work, almost the only means of help outside of surgery is, in many instances, some medicine. The point made by Dr. Gowers is that the average practitioner does do a good deal with his drugs, and that they really have efficacy in lessening the severity and the mortality from disease.

## Abstract.

### LOCAL TREATMENT OF CHRONIC GASTRIC CATARRH.—

*First Stage.*—During the incipency of chronic gastritis, local treatment serves to modify the congestion when that is increased, and often allays dyspeptic symptoms even when they are more marked than usual. The use of warm water (105 degrees) with bicarbonate of sodium (three per cent.) for washing out the stomach is valuable to remove the tenacious mucus usually adhering to the gastric mucous membrane, in this condition. The patient may drink a glassful of the solution before meals or it may be introduced into the stomach through the tube. If the tube is used, the stomach should be filled before allowing any reflow. The cold douche with water at 80 to 60 degrees is sometimes more grateful and helpful than the hot douche (110 to 125 degrees). A continuous effect may be secured by using a double tube, but care should be taken to keep the stomach distended sufficiently to have the solution come in contact with the entire gastric surface. The soda solution dissolves the mucus and the stream washes it away. Weak soapsuds may be used with the tube for the same purpose. More satisfactory, in many instances, is the use of a solution of hydrozone. A glassful (fl 3 viij) of a two or three per cent. solution may be given half an hour before meals. If used as a douche with the tube a five or six per cent. solution is not too strong, and two quarts the minimum amount. These douchings may be given one to six or seven times a week, according to the requirements of the case, and are frequently all this stage of chronic gastritis demands, except changes necessary in the diet.

*Second Stage.*—The inflammatory process is fully developed in the second stage, and while there may be weeks or months when there is little if any suffering, the treatment should be persistent. The cleansing of the gastric mucous membrane must be systematic and thorough. This is best accomplished with a solution of green soap, or a five to eight per cent. solution of hydrozone, introduced with the double tube. After first filling the stomach, inflowing and outflowing streams ought to remain about equal, or the outflow may exceed the inflow; the distention of the stomach may be maintained by retarding the reflow when necessary. When the tube cannot, for any reason, be used, a solution may be made for drinking. For this purpose a two or three per cent. solution of hydrozone is prepared. The patient may take a glassful (8 oz.) half an hour before meal time. He should lie down at once, remain five minutes on the back, then turn on the right side, where he must remain during the remainder of the half hour. While the patient is on the back the solution comes in contact with every portion of the

### *Abstract.*

gastric mucous membrane, and turning to the right side facilitates the emptying of the stomach. By this process the offending mucus is dissolved and carried away, and the organ is put into a proper condition to digest food. The use of hydrozone has also the advantage of checking the growth of the bacteria, and probably exhibits greater antiseptic properties than any other agent that can be used in the stomach with equal safety. In obstinate cases this cleansing ought to precede every meal.

After the stomach is cleansed it should be treated with soothing, stimulating and healing applications, such as glycerole of bismuth and eucalyptol, the essential oils, and glycozone. Boric acid in two or three per cent. solution as a wash with the tube is sometimes very valuable. The other agents mentioned may be used with a nebulizer, a vapor impregnated with the medicines being passed into the stomach through a tube. If it is not convenient to use a nebulizing apparatus, the glycerole mentioned, and especially glycozone, may be administered by the mouth. When hydrozone has been given before meals, as already suggested, for cleansing purposes, glycozone may be administered in teaspoonful doses after meals with very satisfactory results.

If, for any reason, glycozone cannot be employed, the oils of anise, peppermint, cubebs, and tar may be combined and used with a nebulizer as previously suggested. Although benefit may be derived from these, I prefer the glycozone treatment. The use of hot water or of cold water may give happy results in certain cases.

*Third Stage.*—This is the stage of atrophy. The functions of absorption and motion may be fairly well performed. The chief difficulty is with the digestion of proteids. The local treatment has two objects, mainly: First, the removal of debris and foreign material; second, the cleansing of the mucous membrane and the destruction of micro-organisms and their removal in order that the intestines may not receive bacterial products from the stomach. A third object sometimes kept in view is a degree of stimulation of the functions of motion and absorption and the tonic effect to the gastric walls. The first object is accomplished by the use of sterilized water or a three per cent. solution of sodium bicarbonate. Either tube may be used. The second object is effected by douching the walls with a green soap solution or a solution of hydrozone. The latter agent in five per cent. solution as directed above gives very pleasing results. The third object may be secured by using hot or cold water for the douche.—J. M. G. Carter, M. D., Professor of Clinical and Preventive Medicine, College of Physicians and Surgeons, Chicago, in the *American Therapeutist*.





A. F. HOUSE, M. D.



### Original Articles.

## THE LAWS PERTAINING TO TAKING HUMAN BODIES FOR DISSECTION.

BY GEORGE D. HILE, LL. B., CLEVELAND.

Members of the medical profession have in the past, and are still frequently obliged to seek counsel to learn what right they have to take and have in their possession the body of a deceased person for the purpose of dissection and scientific investigation. The question, though old, is not without judicial consideration; but it seems to have been given little attention by the members of the bar, due, perhaps, to the fact that lawyers have no use for dead men. While human bodies, for the purpose of dissection, have always been indispensable, the law, both common and statutory, has vigilantly guarded the tombs of the departed and watched that none break their quiet sleep.

For perspicuity, it may be well to know that in England ecclesiastical courts had cognizance of the burial of deceased persons, the relatives having little if any control over the corpse after burial. The question of burial as one of ecclesiastical cognizance gained but little foothold in this country and, we believe, is now obsolete. The early decisions of England did not recognize the body of a deceased person as property. In 2d Blackstone, 429,—The heir has no property in his ancestor's body or ashes, "nor can he bring any civil action against such as indecently at least, if not impiously, violate and disturb their

remains when dead and buried." "Nor was the dead body of a human being capable of being stolen" (Steph. Dig. of Ct. L., 292). Generally the courts of this country have followed the English decisions<sup>1</sup> except some which have given to a dead body a sort of quasi property, which decisions are not founded on reason.<sup>2</sup>

Knowing that the body of a deceased person is not property nor capable of being stolen, members of the medical profession properly ask, "Why should we be indicted, who, with all the decency possible, exhume bodies to be used for dissection and scientific investigations, that we may come nearer the goal of perfection."

The early decisions of the common law courts of England established the doctrine of "no property in a dead human body," which has been generally followed. Dissection of bodies at that date was hardly practised, but continued to grow till in the 27th year of George III. (1787), in the case of *Rex vs. Lynn*, 2 T. R. 344, the first indictment for taking up a human body for dissection was granted. The court said, "The offence is cognizable in a criminal court as being highly indecent and *contra bonos mores*, and the purpose of taking up the body for dissection did not make it less an indictable offence." Dating from this decision and followed by others, the common law established and made it a crime, or at least misdemeanor, to take up a human body for dissection.<sup>3</sup>

As the science of medicine advanced, the demand for human bodies for the purpose of dissection increased. As new and increased demands produced new results, so legislation was secured designating what bodies might be taken for the purpose of dissection. To-day, almost without an exception, each state of the United States, as well as England (2 and 3 Will. IV., C. 75), has some statutory law permitting the members of the medical profession to take and have in their possession human bodies for the purpose of dissection. The State of Ohio has the following legislation:

*Rev. Statutes, Sec. 3763.* — "All superintendents of city hospitals, directors or superintendents of city and county infirmaries, or superintendents of asylums for the insane, or other charitable institutions founded and supported in whole or in part at public expense,

the directors or the warden of the penitentiary, township trustees, sheriffs, or coroners, in possession of bodies not claimed or identified or which must be buried at the expense of the county or township, shall, before or after burial by such said superintendent, director, or other officer, on the written application of the professor of anatomy in any college which, by its charter, is empowered to teach anatomy, or the president of any county medical society, deliver to such said professor or president, for the purpose of medical or surgical study or dissection, the body of any person who has died in either of said institutions from any disease not infectious, if such body has not been requested for interment by any person at his own expense; if the body of any deceased person so delivered be subsequently claimed, in writing, by any relative or other person for private interment at his own expense, it shall be given up to such claimant.

\* \* \* \* \* That in no case shall the body of any such deceased person be delivered until twenty-four hours after death. The bodies of strangers or travelers who die in any of the institutions herein named shall not be delivered \* \* \* \* \* except said stranger or traveler belong to that class commonly known as tramps, and all bodies delivered as herein provided shall be used for medical, surgical and anatomical study only, and within this state; and the possession of the body of any deceased person for the above purpose, and not authorized by this section, and the detention of the body of any deceased person, claimed by relatives or friends for interment at their expense, shall also be unlawful, and the person so detaining said body unlawfully shall be fined in any sum not exceeding one hundred dollars, nor less than twenty-five dollars, or be imprisoned in the county jail not exceeding six months."

The laws of the different states are similar, generally not so elaborate as the above, but quite uniform in designating that bodies that must be buried at public expense, and unclaimed, may or shall be used for the purpose of dissection. Louisiana seems to have no legislation whatever on the subject, nor Kentucky, but the latter has a statute (Sec. 16, P. 438) making it a penal offense "unlawfully or secretly to disinter or displace any dead body



from the grave." This may be classified under laws against grave robbing, which are common. See Rev. Stat. of Ohio, Sec. 7034, providing, "Whoever, without lawful authority, willfully opens the grave or tomb where a corpse has been deposited, or removes any corpse from its place of sepulture, or knowingly delivers any corpse so unlawfully removed to another for medical or surgical study, and whoever receives, conceals, or secretes any corpse so removed or delivered, knowing it to have been so removed or delivered, shall, upon conviction thereof, be imprisoned in the penitentiary not more than five years nor less than one year; and whoever assists in any surgical or anatomical experiment or demonstration upon any corpse unlawfully obtained, knowing it to have been so unlawfully obtained, shall be fined not more than one thousand dollars nor less than one hundred dollars, or imprisoned not more than one year nor less than six months, or both."

Secs. 7034a and 7035 make it a crime not to report when bodies delivered bear marks of violence and to use a body lawfully delivered for any other purpose, or to traffic therein.

Having seen that the common law first made it an indictable offence to take up a body for the purpose of dissection, that later statutory laws were passed, making it lawful to take certain bodies for dissection, there is still left another question, namely, the right to recover damages by civil action for the wrongful mutilation or dissection of a corpse. The common law, as before stated, in the days of Blackstone and down to quite a recent date, did not give or recognize the right to recover civil damages for the wrongful dissection of a corpse. When statutory laws were passed designating that certain bodies could be used for anatomical purposes, and instituting a penalty for violating the laws, the right to recover damages by civil action was again brought before the courts for consideration. At common law an action of trespass could be brought against such as dig and disturb the grave.<sup>5</sup> In the case of *Meagher vs. Driscoll*, 99 Mass. 281 (1868), a verdict was given for \$837.50 against the defendant for wrongfully disinterring the remains of plaintiff's child. Judge Foster, in considering the case on error, says the nature of the action for disinterring

being *quare clausum*, for entering the plaintiff's close, that the jury had a right in granting compensation to consider the natural injury to plaintiff's feelings, which was for more than nominal damages for trespassing on plaintiff's burial lot. A few other cases seem to permit an action in the nature of trespass. In *Larson vs. Chase*, 47 Minn., 307, the wife was permitted to recover damages for the mutilation or dissection of her husband's body before burial. The court in this case criticizes the reasoning of the court in *Meagher vs. Driscoll* for considering the gist of the action as trespass, but holds that it is the injury done to the person's feelings and not the trespass upon the grave for which damage is given, although technically speaking, in a commercial sense, there is no property in a corpse. The supreme court of New York, in *Foulke vs. Thalmessinger*, 73 N. Y., considered and followed the doctrine laid down in *Larson vs. Chase*, 47 Minn., 307.

From the two cases just mentioned it may safely be said that damages by civil action may now be recovered in the two states named; also that these cases are not founded on any statutes permitting the same to be brought, but take their reason from circumstances of the age in which we live. There are at least two states, Ohio and Connecticut, which have statutes giving the right to recover civil damages. Sec. 3764, Rev. Stat. of Ohio, says, "Any person, association, or company, having unlawful possession of the body of any deceased person shall be jointly and severally liable with any and all other persons, associations, and companies that had or have had unlawful possession of such corpse, in any sum not less than five hundred dollars and not more than five thousand dollars, to be recovered at the suit of the personal representative of the deceased, in any court of competent jurisdiction, for the benefit of the next of kin of deceased." Connecticut Stat., Sec. 1729, is similar to the above section.

The common law a century ago admitted no property in a corpse and gave no civil action for the dissection of the same; but the pendulum of public sentiment has swept clear across the dial of time and reveals to-day the thoughts of an enlightened age, giving to bereaved relatives a remedy not recognized in the long - ago.

Whether the courts of the different states will follow the decisions of New York and Minnesota is a matter of conjecture, but we believe they will, or ultimately laws similar to those of Ohio and Connecticut will be passed giving the right of civil action. While the foregoing discloses two views of the same question diametrically opposed, the facts and circumstances surrounding them are not analogous. With statutes permitting and designating that certain bodies may be taken for anatomical purposes, the right to recover damages by civil action for the wrongful dissection of a body is founded upon reason; but when it was a penal offence to take up any body for the purposes of dissection, the common law was undoubtedly judicious in not permitting an action for civil damages.

#### REFERENCES:

1. Weld vs. Walker, 130 Mass., 130. Meagher vs. Driscoll, 99 Mass., 281. Bogert vs. Indianapolis, 13 Ind., 134. Pierce vs. Proprietors, 10 R. I., 227. Hadsell vs. Hadsell, 7 C. C. (O.) 196.
2. Hadsell vs. Hadsell, 7 C. C. (O.) 196.
3. R. vs. Gilles, 1, Russ Cri. (5th Ed.) 611. R. vs. Cundrick Dowl & Ry. N. P. C. 13, R. vs. Sharpe Dear & B., 160.
4. Penn. Stat., year 1894. Sec. 1, Page 2277, Sec. 7, P. 2280, Sec. 5. Mass. Chap. 81, Sec. 1, Chap. 207, Sec. 47 and 48. Mich., 72.
- Connecticut, Sec. 1129.
- Cal., Sec. 3094, and Sec. 3095.
- Virginia Stat., Sec. 1778, Sec. 1781.
- Col. Stat., Sec. 1367 and Sec. 1547.
- Georgia Code, Sec. 4563. Missouri Stat., Sec. 6883 and 6884. N. J. Stat., 1896, Page 1062, Sec. 69.
- N. Y. Stat., Page 1219-20.
- Ill. Stat., year 1895, Page 276, Sec. 1 and Sec. 2. Ind. Stat., Sec. 4258.
5. 2 Blackstone, 429.

#### SARCOMA OF THE TONSIL.—REPORT OF A CASE.

BY A. H. MARVIN, M. D.,

Surgeon to the Throat and Ear Dispensary of the Cleveland  
General Hospital.

Sarcoma of the tonsil is not by any means so rare a growth as has been supposed, about 50 cases having already been reported. Arslan of Padua, in a paper published April, 1896, has collected 110 cases of tumors of

the tonsils, and he finds that syphilomata rank first in frequency, and sarcomata second. After sarcomata probably come the carcinomata, and lastly benign growths; these being found very rarely indeed in the tonsil.

The form of sarcoma most frequently encountered appears to be the round-celled or lympho-sarcoma; after this the myeloid or giant-celled, and least frequently the spindle-celled. The most malignant forms are undoubtedly the round-celled and alveolar varieties. These are found generally either in the young or the old, and but rarely in the middle-aged. They usually give rise to metastatic growths, and are very apt to recur locally after removal. The myeloid and spindle-celled tumors possess local malignancy, but do not cause metastasis. In estimating the malignancy and frequency of these growths as compared with cancer of the tonsil, it must be remembered that nothing short of microscopical examination will enable one to make the differential diagnosis, and it is very probable that a goodly percentage of cases of so-called cancer are round-celled sarcomata. Probably most of the encephaloid belong to this class. However, this is for the pathologist, rather than for the clinician, to discuss.

The etiology of malignant growths of the throat has been charged largely to the influence of habitual over-use of alcohol or tobacco.<sup>2</sup> I have not been able to get statistics on this subject, so I must conclude that in most cases reported alcohol and tobacco have been used by the patients. Since March 1st, 1896, I have had 6 cases of malignant disease of the pharynx and larynx under treatment. Of these there were four cases of cancer of the larynx and two of malignant disease of the tonsil, one of them sarcoma, and one either lympho-sarcoma or carcinoma. Of these cases, three used alcohol and tobacco in moderation, one, alcohol in moderation and tobacco in excess; and two used neither alcohol nor tobacco. It seems to me that neither the abuse of alcohol nor of tobacco can be considered causative, especially when it is considered that most patients give the history of having been quite well previous to the appearance of the growth.

The symptoms of sarcoma of the tonsil are:

First, the feeling of a mass growing in the throat.

This may be associated with dyspnea, difficulty in speaking plainly, or dysphagia, according to the size and direction of the growth upward or downward, but the degree of inconvenience suffered will vary greatly with the temperament of the patient.

Second, pain. This is usually present, especially in the lympho-sarcoma and alveolar sarcoma, though it may be almost entirely absent in the slow-growing forms, such as the giant-celled and spindle-celled varieties. When present, the pain is lancinating and radiates toward the ear of the affected side, quite like the typical pain of cancer of the larynx. The pain is naturally much worse on swallowing.

The third symptom is fetor of the breath. This only appears after the tumor has begun to break down. At this stage large pieces frequently separate from the mass and are expectorated by the patient.

Fourth, we have the important symptom of hemorrhage. I have placed this last because it may occur from erosion of an artery in a simple peri-tonsillar abscess, and also because the source of the hemorrhage may be so easily mistaken by a patient. However, when considered in connection with the foregoing symptoms, the diagnosis of malignant disease becomes almost inevitable. The hemorrhage may be frequent and with loss of but a small quantity of blood, or at rare intervals and more severe. A case has been reported of death from even the second hemorrhage.<sup>3</sup>

The diagnosis of sarcoma of the tonsil may be easy or difficult. In the early stages there is a close resemblance to an ordinary tonsillar hypertrophy. Here attention must be paid to pain, unilateral appearance, age of patient, and rapidity of growth. It will also be noticed that the orifices of the lacunæ have become obliterated, giving a smoother and more shining appearance to the tonsil than is noted in an ordinary hypertrophy. As the disease progresses, the tumor grows rapidly, the pillars of the tonsil become pushed apart, and a tendency to infiltrate the surrounding structures is manifested; but this is not so striking as in carcinoma, for there is usually a thin capsule present caused by condensation of the tissue around the growth, and the tumor does not

become adherent to the neighboring parts until a later stage.

The differential diagnosis lies in the early stages between, first, simple hypertrophy and, second, syphiloma. By observance of the preceding remarks, hypertrophy may be ruled out and the negative value of anti-syphilitic treatment will suffice for the second. In later stages the question may arise between carcinoma, syphilis, and, strange as it may appear, peri-tonsilar abscess. Between carcinoma and sarcoma, I am of the opinion that the diagnosis may only be made by the aid of the microscope, but clinically this is of little importance as the treatment is similar. Anti-syphilitic treatment is of value here, the same as in the early stages, and should always be tried before resorting to extreme operative measures. I should not have introduced peri-tonsilar abscess here for differential diagnosis, had I not seen the mistake made in practice. An Italian aged 52 appeared at the dispensary of the Cleveland General Hospital, Oct. 2nd, of last year, complaining of pain in his throat and inability to swallow food readily. It was difficult to obtain a good history on account of the patient's entire ignorance of the English language. A young practitioner present readily diagnosed the case as peri-tonsilar abscess after a casual glance at his throat; on careful examination, however, we found a fungating mass of hard consistency starting apparently in the tonsil and invading the tongue and soft palate, and almost filling the post-nasal space. The patient disappeared before a piece could be removed for microscopical examination, but from the hardness of the growth it was likely carcinoma. It was, of course, too late for anything but a palliative operation. Careful examination, the history of the case, and, if necessary, exploratory incision will easily differentiate malignant disease from peri-tonsilar abscess.

The prognosis of these cases is almost uniformly bad, the duration from the time of recognition seldom exceeding one year. In contrast to this we may notice a case reported by Norris Wolfenden,<sup>4</sup> of London, who removed a round-celled sarcoma by means of the hot snare. Two years later there was recurrence and he again operated, this time using the cold wire. At the time of

writing, four years from the first operation, the patient was perfectly well.

The treatment of the disease is most important. When recognized early, operation is certainly advisable, and by either of two methods, namely, by the mouth or by external operation. When performed by external operation, it falls within the domain of the general surgeon and need not be discussed here; when removed by the mouth, however, it will probably be performed by the throat specialist. The internal operation is indicated only when the entire growth may be removed, or when, being inoperable from without, it is performed simply as a palliative measure.

The operation may be made with the scalpel after a preliminary tracheotomy, or with the galvano-cautery knife or snare, without resorting to tracheotomy. The galvano-cautery knife heated to a cherry red color seems to me the preferable method, as the entire operation may be performed at one sitting, and one can also be sure of including all of the sarcomatous tissue. If the entire operation be not completed at once, a thick false membrane due to coagulation necrosis will form over the parts burned, and this, together with the reactionary inflammation, will render the later operations more difficult. There will also be difficulty in distinguishing between the healthy and unhealthy tissue.

Under palliative measures comes treatment with lactic acid, as employed by Ingals<sup>5</sup> of Chicago, who injects three times a week 5-10 minims of as strong a solution as possible without causing sloughing. He found this to be about 60 per cent. Under this treatment the sarcoma decreased in size at all points where the injections could be made, but at the time of reporting the disease was spreading to parts inaccessible.

MacCoy<sup>6</sup> of Philadelphia reports a case treated with Donovan's solution internally and locally, the use of the galvano-cautery, lactic acid, and lastly the application of a solution of iodine and carbolic acid, which he regarded as most efficient of all. The duration of the case was one year.

Under palliative measures reference should also be made to a case of sarcoma of the right tonsil reported by

Moritz<sup>7</sup> of Manchester. There were deposits in the roof of the mouth and left parotid region. Injections were made into each tumor three times weekly of 5 milligrams of a saturated solution of yellow pyoktanin. Under this treatment the tumor in the roof of the mouth disappeared and the tonsilar growth decreased to one-half its previous size. The subsequent history is not given.

Bacon<sup>8</sup> of New York, reports a case in a boy seven years old. Dr. Coley injected a mixture of erysipelas and prodigiosus serum for a week, when sepsis supervened and death followed in four days.

From all reported cases it may be safely concluded that early operation should be resorted to; and even in the late stages palliative operation renders the patient much easier and relieves him of the terrible septic condition due to absorption of toxic products from the necrosing mass.

In conclusion I should like to report the following case operated upon by the galvano-cautery knife under cocain anesthesia. This form of operation has been resorted to several times in the last few years with almost uniform success.

Dec. 16, 1896, Mrs. H., native born, æt. 31, married, one child six months old, was kindly referred to me by Dr. Lashells, of Meadville, Pa. The patient complained of something growing in her throat. She had a bad smell and bad taste in the mouth, and three weeks previously a violent hemorrhage had occurred spontaneously. The growth was noticed for the first time two years before, but she did not suffer inconvenience until six months before I saw her, when it began to break down and occasionally to bleed. No pain was complained of. The hemorrhage, three weeks before, alarmed her, and she became anxious for radical treatment.

Upon examination, a black ulcerating mass was seen occupying the position of the right tonsil and bulging forward the anterior pillar and soft palate as far as the edge of the hard palate. The soft palate seemed to be adherent to the tumor, but was not broken down at any point. The uvula was pushed aside and appeared also somewhat adherent.

No specific history was obtainable, but the patient



had been placed on "blood medicine" for almost a year before she consulted a surgeon. There was practically no pain, only a sense of discomfort while speaking or swallowing. Considering the symptoms I made the diagnosis of sarcoma and recommended operation. The next day the patient was taken to the Cleveland General Hospital and the growth removed under cocain anesthesia, using the small galvano-cautery knife to perform the operation. The growth on removal measured  $1\frac{1}{2} \times 1\frac{3}{4} \times 2$  in., and was encased in a thin capsule which was dissected out entire. Microscopical examination showed it to be a small spindle-celled sarcoma.

There was no especial difficulty met with during the operation aside from rather brisk hemorrhage at times. This was controlled by tampons of hydrogen dioxid in full strength. After the cavity formerly occupied by the tumor was cleared out, the pulsation of the carotid could be plainly seen in the bottom of the wound. The time of operation was one hour and thirty-five minutes. Part of the time was occupied in allowing the patient to recruit her strength and courage, and part, also, in stopping the hemorrhage.

It is now six months since the operation, and the patient writes me she feels better than for years, and that she speaks clearly and swallows easily in spite of the fact that nearly half of the soft palate was removed at the time of the operation. It is too soon to speak of a cure, for in Norris Wolfenden's case previously mentioned recurrence took place two years after operation.

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## SOME CASES OF INJURY TO THE EYE.

BY WILLIAM E. BRUNER, A. M., M. D.,

Clinical Assistant in Ophthalmology, Medical Department of Western Reserve University; Consulting Oculist to the Cleveland City Hospital.

The following cases were of considerable interest to the writer. They were all treated somewhat conservatively and upon a partially expectant line of treatment which appeared to be indicated at the time and was justified by the results. They were all cases of injury by a piece of metal, and in each one there was at least a possibility of a foreign body being in the eye; but instead of proceeding at once upon the assumption of a piece of steel being in the eye and hunting for it in the dark and thereby endangering the structures of the eye, it was deemed better to treat simply those symptoms or conditions demanding immediate attention. Of course the danger to an eye from a foreign body is greatly increased if it is not at once removed, but on the other hand, where the presence of such a foreign body is doubtful, the risks attendant upon a search for it in the dark are even greater.

CASE I.—J. A. V., age 46, was referred to me December 11, 1895, with the history that an hour and a half before, while he was chipping iron, a piece hit him in the left eye. He insisted that it was a large piece about an inch long, but perhaps thin and sharp. There was much pain and photophobia. In the outer half of the cornea was a horizontal cut through which the iris prolapsed. The pupil was small and did not respond to light. It was not possible to obtain a view of the fundus, though the lens appeared perfectly clear, nor was it possible either to prove or exclude the presence of a foreign body. From the position of the wound it was thought that if the iris were replaced it would become prolapsed again, or at least would become attached to the lips of the wound and form an anterior synechia. To prevent this, it was thought best to cut off the protruding iris making a small coloboma behind the wound. Under cocain this was attempted, but the patient became so unruly and gave such a lurch when the iris was drawn forward that no further attempt was made in this direction. Instead, the

iris was gently replaced with a spatula, atropin was instilled and an antiseptic bandage applied. There was considerable pain during the first night, and slight swelling of the lids and edema of the conjunctiva were present the next morning, but the iris was not prolapsed, though it was lying against the wound, and there was no pericorneal injection. There was no more pain and all tenderness gradually disappeared. Six days after the injury vision was  $\frac{1}{2}$  partly and with a  $+3.50^s \frac{1}{2}$ . Examination with the ophthalmoscope gave no evidence of a foreign body, the lens was perfectly clear, and the fundus in good condition. There were suspicious looking spots in the iris, but by careful examination they were proved to be simple rents through which the red reflex could be seen. On the 25th, two weeks after the injury, the patient was discharged. On February 27th he came to the office again stating that recently, since he began working, his eyes were aching and there was considerable photophobia. As the ophthalmoscope showed the fundus perfectly healthy in each eye, but several diopters of hyperopia, refraction was again advised and performed under homatropin with the following result:

O. D.  $+4.25^s \frac{1}{2}$ .

O. S.  $+5.25^s \frac{1}{2}$ .

These were ordered, less  $0.50^s$ , and since that time he has had no further difficulty.

CASE II.—F. M., age 49, was referred to me April 20th, 1896, with the history that while he was at work that morning a chip of iron or steel as long as his finger nail and rolled upon itself struck him in the left eye. He was sure it was not in the eye as he said that he picked up the piece afterwards. He was suffering severe pain when I saw him. Examination showed a vertical cut four to five mm. long in the pupillary area of the cornea, not extending beyond the edges of the iris. The anterior chamber was collapsed, no hyphemia existed and no prolapse of the iris, although it did appear slightly attached to the under surface of the wound. The pupil was small, slightly irregular, and irresponsive to light. The lens was cataractous, so that no view could be obtained of the interior of the eye, but with the ophthalmoscope through the cloudy lens there did appear to be a

rather bright reflex from the interior of the eye, somewhat suggestive of metallic reflex, though it might simply be (what it evidently was), a reflex from the back part of the irregularly opaque lens. A slight amount of lens matter was protruding through the cut in its anterior capsule. Tension was slightly diminished, injection of the eye very slight. Repeated instillations of atropin had no effect upon the pupil. Antiseptic dressing and bandage were applied. Three days later the pupil was fairly well dilated, but there was one synechia inwards. The anterior chamber was established, but on the inner side the iris seemed pressed up almost if not quite against the cornea. There was no pain. The patient was not seen again for about three weeks, when he called to say that he had occasional supra-orbital pain over the eye. There was still some injection of the eye, the pupil round. The anterior chamber was of good depth on the outer side, but upon the inner side the iris seemed pushed up against the cornea. Tension, +.

I advised operation and sent him to Charity Hospital. The patient was so hard to control that an anesthetic was administered. Some lens matter escaped as soon as the corneal incision was made, and before an iridectomy could be done the whole lens had escaped. As I drew upon the iris the patient suddenly squeezed hard upon the eye with resulting considerable loss of vitreous. The speculum was quickly removed and then, while an assistant held up the lid, I succeeded in doing a small iridectomy, though not so large as I should have done had not the assistant had so much difficulty in getting the patient fully under the influence of the anesthetic. An antiseptic dressing and a bandage were applied to both eyes. Save slight headache after the operation and some pain the second night, recovery progressed satisfactorily, though with slight prolapse of the iris at the outer edge of the coloboma. Four weeks after the operation the prolapse had not changed, and there was still slight redness about the eye and slight photophobia. The ophthalmoscope revealed floating opacities in the vitreous. Vision, O. S.  $+7^{\circ}\odot +8^{\circ}$ , axis  $135^{\circ}$ ,  $\frac{5}{16}$ . Under cocain I cut off the protruding iris. The eye healed with practically no irritation whatever; redness and photophobia rapidly disap-

peared. Six weeks later vision with  $+ 10^{\circ} \odot + 4.50^{\circ}$ , axis  $130^{\circ}$ ,  $=\frac{2}{3}$ , which I looked upon as an excellent result, considering what the patient had passed through and that he had a scar involving the pupillary area of the cornea and floating opacities in the vitreous.

CASE III.—A. S. consulted me May 29th, 1896, with the history that three days before, while he was chipping iron a piece struck him in the right eye. He did not know whether the piece was in the eye or not, but thought it was a large piece and was not in the eye. He had not been having much pain until the night before. Examination showed a vertical cut 7 mm. in length through the cornea to the inner side of the pupillary edge of the iris and prolapse of the iris through this cut. The iris was of good color and did not seem to be bound down to the lens capsule at any point. The pupil was horizontally oval and somewhat dilated. The cornea was slightly hazy about the wound, there was pericorneal injection and slight conjunctival secretion. The lens was cataractous, but not uniformly so, more dense at the inner half. No view could be obtained of the interior of the eye. There was slight ciliary tenderness above, anterior chamber normal, T.=N. As I felt very doubtful of the steel being in the eye, I advised first the replacing or excising of the prolapsed iris, later the extraction of the lens. Then the interior of the eye could be examined and, if anything should be found, such procedure adopted as might seem called for. The following day, under cocain, I separated the edges of the wound, drew out the iris, excised it, and carefully freed the edges of the wound. Free hemorrhage took place. The blood was removed in part with the aid of a spatula, atropin instilled and an antiseptic dressing applied. For several days the eye did nicely, though there was no tendency for the blood in the anterior chamber to become absorbed. Then he began having considerable brow pain, and the injection of the eye became more marked. Mercury was exhibited internally, atropin frequently instilled and hot packs freely used. Through the kindness of Dr. Sherman, a large magnet corresponding to Haab's was tried for diagnostic purposes, but without the slightest indication of the presence of any steel in the eye. After a few more days pain began to subside

and later also the redness. At no time was there any ciliary tenderness.

July 3d. Redness entirely gone. T. normal; counts fingers; field for light normal; advised extraction of the cataract.

September 15th. Eye has been perfectly comfortable for two months and is looking nicely. The hemorrhage in the anterior chamber has undergone organization causing an anterior synechia between the cut edge of iris and the corneal wound. The anterior chamber is normal. Light perception and light projection are good. At Charity Hospital, under cocain, I did a combined extraction with a broad iridectomy upwards. Occlusive antiseptic dressing was applied to both eyes. Recovery was prompt and uninterrupted. Vision with glasses gradually improved until October 23d, 1896, about five weeks after the operation, when, with  $+11^{\circ}$ .  $\odot + 1.50^{\circ}$ , axis  $180^{\circ}$ , vision =  $\frac{6}{75}$ . Could I have kept him under observation longer the vision would probably have been even better, as during the preceding week it had improved from  $\frac{6}{17}$  to  $\frac{6}{75}$ ; but he started for his home in England.

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### SCHOOL HYGIENE.\*

BY L. WOODRUFF, M. D., ALTON, O.

The State of Ohio may be justly proud of the provision made for the proper training and instruction of children in the public schools of the state, but while state and local boards of health are adopting rules and regulations for the prevention of communicable, infectious and contagious diseases, it is apparent that important sanitary precautions are overlooked in the management of our public schools where many thousand children spend six hours each day for a period of eight or nine months each year.

Bacteriologic research has demonstrated the microbic origin of so many diseases, and that hygienic measures should be directed to their destruction and to the prevention of their dissemination, that sanitarians are no longer

\*Read before the State Pediatric Society, May 18, 1897, at Cleveland.

regarded as alarmists when they insist on absolute cleanliness everywhere. The well established germ theory as to the causation of disease demands the most scrupulous cleanliness of the school-room attainable; the dirty and generally unnecessary habit of spitting upon the floor should be absolutely prohibited; soiled and possibly infected wall-paper should be removed and paint put on, and the floor thoroughly scrubbed as often as its condition requires. No one having tuberculosis should be permitted to attend, or to teach, school. In addition to the certificate of educational qualification required of teachers before they can be legally employed, they should be required to present the certificate of a reputable physician or authorized medical examining board that they are free from tuberculosis or other communicable disease, and that they are otherwise in sound physical health.

Apropos of this, the writer presents the following as having fallen under his own observation: A young man who was known to have tuberculosis was employed in one of the schools of Franklin county, Ohio, and because of failing health was obliged to resign before the expiration of the first half of the term. He died a few months later. A year afterwards the school was taught by a young man in apparently vigorous health. One term was taught, and indications of failing health were manifest; a second term was in progress when he was obliged to resign, having unmistakable signs and symptoms of tuberculosis. It is fair to assume that he contracted his illness in the school-room already infected by his predecessor.

Over-crowding is one of the evils most to be complained of. The mawkish odor perceived on entering a school room tells at once of vitiated air, and calls loudly for the removal of respiratory impurities by constantly supplying fresh and pure air.

How to expel the foul air and admit the requisite quantity of fresh air is the essential of ventilation; and the problem which engineers have to solve is to find the cheapest and most constant plan of introducing warm air, of a temperature under 90° in cold weather, 3,000 cubic feet per capita per hour, at a rate of movement imperceptible to the feelings of the pupils.

From 300 to 500 pounds of fetid vapor are thrown off

with the breath and by insensible perspiration from every 1,000 children during school hours, each day, in addition to 200 pounds of the deadly poison, carbonic acid gas. Irritability in teachers and listlessness and peevishness of pupils are due to the respiration of this poisoned air, other effects being seen in the pallor of countenance, headache, nervousness, lassitude and diseases of greatest gravity.

The subject of ventilation of buildings is so intimately associated with warming them that it is almost impossible to discuss the one without a more or less careful investigation of the other. Thorough ventilation is impossible when radiant heat alone is used for warming; I beg, therefore, to enter my protest against stoves. The ventilation effected by stoves is very imperfect, only the smallest amount of air which is necessary for combustion being removed from the room, and when very hot they deteriorate the remaining air. When at a red heat, the stove burns the oxygen out of the air, and though the quantity of oxygen thus consumed may be very small it is yet a waste of that indispensable element of respirable air. The fluctuating and unequal distribution of heat afforded by stoves renders them still more objectionable.

In the small, one-room bulidings in the country it seems quite impossible to dispense with them, and to remedy their defects the addition of moisture to the air in the room is important. A common practice is to set a vessel of water on the stove, and some one has suggested linen or cotton cloths dipped in water and hung on some convenient frame-work; an "endless towel" has been proposed, hanging upon a roller, with its lower part dipped in a vessel of water beneath, and this turned so as to keep a large wet surface constantly exposed to the air.

Many of the disadvantages of an ordinary or closed stove may be overcome by the jacketed stove. The stove is surrounded by a jacket of sheet-iron standing about a foot from the stove on all sides, being well fitted to the floor and extending a short distance above the top of the stove. A door in the jacket corresponds with the door in the stove. Cold, fresh air is admitted from the outside of the building by means of a flue 12 to 18 inches in



diameter brought in under the floor and opening beneath the back part of the stove, inside of the jacket; the air is heated and escapes into the room at the top of the jacket, which is left open. Thus is supplied pure, respirable air at a temperature sufficiently high to warm the room to a uniform and comfortable temperature in all its parts.

As various kinds of light affect the eye differently, so there are differences in the effect of the various kinds of heat on the body. The warm air of stove-heated rooms produces great lassitude and yawning, similar to that induced by the dry, hot weather of summer, and the languor and listlessness so characteristic of residents of torrid climes.

The open grate and common fire-place deserve favorable consideration, as a means both of heating and of ventilating. I make no pretensions to inventive genius, but believe that the individual who shall discover or invent a practicable and convenient method of heating and ventilating school-rooms will confer a blessing on the world scarcely less valuable than the invention of the safety-lamp by Sir Humphrey Davy.

*Defective Lighting* is another serious fault of school-buildings. A very free exposure to direct sunlight falling preferably behind and on the left side of the pupil, and modified by a screen or shade—a neutral gray—is best. The walls and ceilings of a school-room should be painted of such color as will soften and mellow the light and make it comfortable to the eye; and this brings me to speak of *Vision and Ocular Defects in School Children*.—The various anomalies of refraction and defects of accommodation to which the human eye is subject have, of late years, received a great deal of attention, and the means by which these anomalies and defects may be recognized and corrected have been thoroughly studied and systematized.

If a pupil habitually and daily complains of headache, while at study, we may fairly suspect that he is suffering from eye-strain and his eyes should be examined by a competent eye specialist. At this juncture in the preparation of my paper I am in receipt of the *Journal of the American Medical Association* of May 1st, in which appears a letter to the editor from Dr. A. C. Corr, of Carlinville, Ill., on

the "Eyes and School Work," which should be read by every physician, and especially by every member of a school board. I take the liberty of quoting one or two paragraphs as expressing what I would say better than I have the ability to do. He says: "Bad or imperfect light requires an increase of the visual effort and contributes to eye-tire, worry and exhaustion, for in all eyes vision at the near or reading point is a voluntary muscular effort. With bad light and small print and fine lines in geography and other branches of study, the objects to be seen distinctly must be looked at longer. The length of time of steady fixation necessary causes fatigue of muscles, nerve and retina, in which the object seems to change its color and fade."

"Therefore the light of school-rooms should be as perfect daylight as the confining walls will permit, and admitted so that the pupils may have the greatest advantage over its imperfections."

"Bad atmosphere, want of ventilation, is enervating and impairs muscular tonicity, so necessary to keep up eye tension for acute visual purposes. But with all possible care on these points, many eyes will be sacrificed by the increasing demands upon children of to-day for mere literary attainments."

"The eye work required of children now is double if not treble what it was twenty or thirty years ago, and the clamor of all is yet for a higher grade at a tender age."

Excessive zeal on the part of parents to place a precocious boy or girl in school even before the too tender age of six years, as prescribed by law in Ohio, may be the cause of nervous derangements characterized by "sleeplessness, or restless sleep disturbed by dreams," or the graver diseases, such as chorea, epilepsy and neurasthenia, the latter being a complete failure of strength, bodily and mental. It is well for parents to consider, and teachers to know that children at six years, or even eight, *cannot be students*, and that they should not be subjected to strict school discipline for six hours a day. Such young children should be allowed the largest liberty in changing in the seat—it is impossible for them to sit still, and they should be permitted and even encouraged to engage in sports and play in the open air.

The pupil of sanguine temperament is full of vital energy and inclined to active employment. The distinguished scholar and educator, the late Horace Mann, describes a boy of this temperament whom he saw in visiting a school in Massachusetts. It seems that it was past the usual hour for closing school, and this young lad had put away his books and procured his cap and held it in his hand ready to jump and scream the moment that the teacher would dismiss them. This evening the teacher was engaged in solving a difficult problem for one of the larger scholars and did not notice that it was past the time for closing school. The young lad became very restless and impatient, casting glances first at the teacher and then at the door, until at last forgetting himself in his great anxiety to escape, he whistled so loud that the teacher heard him. "John," said he, "was that you who whistled?" "No," said John, "Master it was not me." "Yes it was," continued the teacher, "what did you tell me that wrong story for?" "I did not, master, I did not whistle," continued John, beginning to cry, "it whistled itself and I could not help it." Young lads like this require exercise and employment, and if this be neglected they will become vicious and mischievous, because their untiring energies must be expended.

The plan or system of "grading" and offering prizes or other incentives to overwork is of questionable propriety, as it stimulates an ambition to be in the front rank of scholarship and often results in break-down, physically and mentally.

A distinguished writer, Locke, says: "If by gaining knowledge we destroy our health, we labor for a thing that will be useless in our hands. In these days half our diseases come from the neglect of the body in the overwork of the brain."

*Seats and Desks.*—In the more modern seat and desk much of comfort has been secured. Uneasy and painful positions which tend to produce spinal curvature and chest deformity should be guarded against by selecting the most comfortable pattern. Especially should the back of the seat conform to the general contour of the child's back, and more particularly give support to the lumbar region. Teachers should prohibit the leaning, lateral

position so often indulged in by lazy pupils. The desk should not be so close as to place the book too near the eyes, nor so far away as to cause the pupil to lean forward.

As a rule, physicians take little interest in politics—the less the better, if it be the thing known as party politics—a scramble for place, power and personal ends—a murky pool so foul as to tarnish the fairest character, but every man, and woman too, should know so much of the genuine article as to be able to judge correctly of the merits of legislative enactments and determine for themselves the possible and probable effects of laws. Doctors being conservators of the public health should be largely represented in every legislative body—should constitute a large proportion of boards of education, where their duties as citizens of the state may be most effectively and efficiently performed.

The foundation for the preservation of health and the prolongation of life must be laid in a healthy childhood, and thence may be expected a vigorous manhood. Sanitary precautions are being taken in every department. In Brooklyn, Boston, Chicago and other large cities ordinances are in force prohibiting spitting on the floors of public conveyances, and penalties are attached for their violation. There is no place where such precautions can be taken and result in greater good to the greatest number than in school-rooms.

The facts which have been chiefly emphasized in this paper are such as have a direct and practical bearing on the preservation of youthful vigor while carrying on the process of mental culture.



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## Editorial.

### LAWS REGULATING THE USE OF BODIES FOR DISSECTION.

In the valuable article upon this theme which appears in the present number we have a review of the subject, showing the attitude of the old English common law, which the law in this country chiefly followed; and giving a résumé of the statutes as they now stand in the various states of the Union. The essayist shows that in early times the taking of a dead body was a crime or misdemeanor in the eyes of the law; but as a dead body was not regarded as property, the stealing of it or the mutilation of it gave no cause for civil action. Then came a time when damages were awarded under an action for

trespass. Subsequently it was held that the relatives of the dead were entitled to money recompense for the injury to their feelings. After laws had been passed allowing the use of certain bodies for purposes of dissection, and so in a measure removing the necessity of procuring them in an unlawful manner, the courts entirely reversed the opinions of the earlier jurists, and in several instances have held that there is a property right in the dead body, and therefore a ground of civil action.

Ohio and Connecticut have statutes recognizing the right of civil action. In a case which has come to our notice only recently, that of Samuel C. Burney vs. the Boston Children's Hospital, the same decision was arrived at. The action was to recover damages for an autopsy made without the father's consent upon the body of a child. The contention of the defendant was that there is no property right in a dead body and this had been sustained by a lower court. But the full bench of the Massachusetts Supreme Court set aside this verdict and decided for the plaintiff. So it seems probable, as the essayist conjectures, that other states will enact laws similar to those of Ohio and Connecticut, or that the courts will construe the existing laws to the same effect. Commenting on this change in the attitude of the law our essayist says: "The pendulum of public opinion has swept clear across the dial of time, and reveals to-day the thought of an enlightened age, giving to bereaved relatives a remedy not recognized in the long-ago." This may appear to the laity only even-handed justice, and doubtless to the lawyers it is welcome as one more chance to bring an action; but the medical profession will scarcely appreciate the necessity of being hampered in our recently acquired rights and privileges. We recall the fact that the world existed thousands of years before the dissection of the dead human body was legalized in any degree. We recall how "the Inquisition clamored for the blood of Vesalius" and finally sent him on a pilgrimage during which he sickened and miserably died—and this for the heinous crime of dissecting a human body. This is only a single example—one little incident in the reign of superstition and ignorance among the many which blot and blacken the ages down to times so

recent that their departing shadow is still lingering upon us. We regard the enlightenment of the age as better exemplified in the laws which grant physicians some privileges in the way of anatomical study, and sincerely hope that the "pendulum of public sentiment" has reached its extreme limit in the direction of curbing scientific investigation. We think it might swing back a notch or two to the advantage of the human race; and we would like to suggest two points wherein the laws should be amended.

In some of the states the law provides that the body of the unclaimed pauper which otherwise could be delivered to the proper person for anatomical use, can not be so disposed of if the person before dying express an objection to such a disposal of his body. We have before now shown how any chance acquaintance of the sick man, or any fellow inmate of an institution can remind him as his end draws near, to enter such an objection, and so prevent a legitimate use of a body which should rightly have gone to the dissecting room. Friends of the dead man who neglected him and allowed him to be a charge upon the public and a beneficiary of the medical staff as long as he lived, will turn up after he is dead, and pay a few dollars for his burial for the sole purpose of preventing the use of the body for scientific purposes; or they will put in an appearance later with their property rights and their lacerated sensibilities and demand payment for damages.

Again, statutes should be enacted in every state making it lawful at least to hold a post-mortem upon every charity patient or inmate dying in a hospital or public institution, whether claimed or unclaimed by friends. It should be understood by the people that a patient maintained and treated free of charge must in case of death be submitted to an examination at the hands of the medical staff if they desire to make such examination.

We shall not be surprised if the time comes when the medical staff will be required by law to make a post-mortem in every case of death by disease or accident, and to record their findings along with the history of the case. This would be more sensible than to put restrictions upon the study of anatomy and pathology.

## LAY APPRECIATION OF MEDICAL ETHICS.

This is something we do not often look for in the public press, and when it is found the newspaper which takes a stand for the interests of humanity rather than pander to the greed of its patent-medicine advertising patronage should have full credit. Following are extracts from an article in the New York *Commercial Advertiser* headed "Secrets of Medicine."

"The medical profession was severely blamed by Mr. Stead because it refused to appoint a committee to investigate the alleged cures of an Italian count who professed to have found an invariably successful remedy for cancer. The count did not, it seems, propose that the physicians should know the nature of his treatment—that was to remain a secret for the financial benefit of the discoverer—but they were to submit cases to his care and report on the result of his remedy. Mr. Stead could not understand why, if the medical men had the interests of the afflicted at heart, they should refuse to test and report on the alleged discovery of a man outside the profession. \* \*

"The medical profession is made up of men of at least average intelligence. \* \* \* \* \* These men who have chosen medicine as a business have prepared themselves in every way known to an enlightened age to battle successfully against pain and premature death. They have devoted years to the study of everything that can enlighten the mind as to the development and structure of the human body, the functions of all the organs and their action in health and in disease, and the effect, in all conditions, of every substance within their reach. They have acquired experience in the hospitals, and day by day their studies and observations add to their knowledge. Although the practice of medicine is still in many ways empirical, it is obvious that those who give every hour of their lives to it are most likely to learn whatever secrets there may be in their field. There is a *prima facie* case of self-delusion or fraud against any person outside the profession who claims to have made a remarkable medical discovery.

"The physicians have entered into a voluntary compact to subordinate their personal interests to the welfare



of their fellow creatures to a degree unparalleled except in the case of certain religious orders. Whatever comes to their knowledge in relation to diseases and their treatment shall be made the property of all the world. \* \* \* Every advance in this field might have yielded great fortunes to physicians if they had chosen to keep their discoveries secret. Without a single known exception—without a single exception where the discovery was genuine and useful—the doctors have stood by their splendid compact.

“To such men comes a man, \* \* \* and declares he has discovered \* \* \* a substance which, when administered to a human being, will make him proof against the attacks of the most virulent diseases. To such physicians he makes this demand, in the name of suffering humanity: ‘You shall take the time from your work to test my claims, under conditions of my own. If you cannot disprove my claims, the burden of proof resting with you, then you shall so certify to the world. Then all who choose to pay my price may have the benefit of my treatment, though I shall not reveal my secret. By this fact, I place myself outside the pale of professional respectability.’ Could anything be more impudent? This is virtually the demand in all these cases. When the honorable physician discovers anything useful in relation to disease he makes a full report and invites all other physicians to verify his experience, and whoever refuses to do that forfeits any standing he may have had among medical men.

“No doubt some of those who make these impudent demands on physicians are self-deluded and really fancy they have found something wonderful. Others are frauds, in or out of the profession, who know that a challenge to the medical profession will make the foolish mass of mankind believe in them. They can make an advertisement out of any notice they receive from reputable doctors. \* \* \* \* \*

“The man does not live who has gone far enough in medicine to discover a great secret who will not reveal it in preference to making a great fortune from it. The applause of the medical world is worth more to him, no matter how mercenary he may be or how poor, than mill-

ions of dollars gained at the cost of violating the first principle of professional honor. Therefore, it may be repeated that the physician who professes to have such a secret dare not submit it to the profession because it cannot stand experiment."

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#### AUGUSTUS F. HOUSE, M. D.

Dr. House, whose portrait appears this month, has just passed through a serious illness from blood-poisoning. At one time it was reported that he would probably not recover, and we thought over quite a number of good things about him we were going to put into a biographical sketch. Now he is getting well, and of course we must leave them all out, and confine ourselves to dry historical facts, or some sensitive soul will be sure to cry because *he* wasn't put in first, and maybe threaten to stop his subscription.

Augustus F. House is a Clevelander, having been born here October 7, 1847. He graduated from the old Cleveland Medical College (now Med. Dept. W. R. U.), Feb., 1871. The following spring he was married to Miss M. G. Cleave, also of this city. After many years devoted to general practice, during which he acquired a very comfortable competence, Dr. House turned his attention to surgery and gynecology, which he now practises exclusively. He is a member of the Cleveland Medical Society and has occasionally contributed papers. As a member of the committee of arrangements for the Cleveland meeting of the State Medical Society last spring he did efficient work. Dr. House is surgeon to the St. Clair Hospital and gynecologist to the German Hospital.

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#### Periscope.

##### STRENGTH-MILK.

Jaworski, of Krakau (*Ther. Mon.* 5), has made some observations and collected certain data in the feeding of invalids with a *strength-milk*.

Accordingly he recommends a milk with 10 per cent.

fat, 1.8 per cent. proteid, 6 per cent. lactose and 0.3 per cent. of salts. A cream with 20 per cent. fat is diluted with water and its percentage of sugar made 6 per cent. Besides the strengthened milk a *double milk* is serviceable with 7 per cent. fat, 1.8 per cent. proteid, 6 per cent. lactose and 0.3 per cent. of salts. Of the first one and one-half liters are taken daily, of the last two liters; they are to be each doubly sterilized. Strength-milk is well borne and a milk diet can be more successfully carried out with it than with ordinary milk. The average increase of body weight is 1 kilogram per week.

#### STRYCHNIN IN ALCOHOLISM.

Combemale, of Lisle, France (*Muenchner Med. Wochenschrift* 27), strongly recommends the daily injection of 2-5 mg. of strychnin hypodermatically for two weeks. It occasions a dislike for liquor and thereby wards off the inclination to drink. Serious torpor of the liver and kidneys and degeneration of the important organs are contra-indications for its use, since there is then danger of accumulation.

#### ACETONE IN THE URINE OF PREGNANCY.

L. Knapp (*Centralbl. f. Gynäk.*, 1897, No. 16) claims that an excess of acetone in the urine is a sure sign of the death of the child in utero. Acetone was detected by Légal's nitroprussid of sodium test. Traces of acetone are normally present in the urine; larger quantities originate, however, from a rapid decomposition of proteids in the body.

#### FOOD PRESERVED WITH FORMALDEHYD.

Franz Ehrlich (*Hygienisch. Rundsch.*, 1897, 468) has studied the question whether formaldehyd is a suitable preservative. Milk to which a sufficient quantity of formaldehyd has been added to preserve it for several days tastes of the preservative distinctly; the disagreeable taste precludes the drinking of the milk. A means for removing the aldehyd from the milk is not known as yet. Horse-meat is rendered unfit for eating because of the unappetising appearance and odor. Beef treated with formaldehyd has no odor of the latter, and after a short time can be eaten.

Probably this different deportment of beef and horse-meat with formaldehyd might be used as a means of distinguishing them, which in small pieces it has been quite impossible to do until now. While beef does not take on an odor, horse-meat, after forty-eight hours, has a characteristic odor of old roast goose.

# THE CAUSE OF POISONING BY CURTAINS CONTAINING ARSENIC.

Oskar Emmerling (*Berichte*, 1896, 29, 2728) finds, as the result of numerous experiments conducted with different bacilli and micrococci, that in no case is hydrogen arsenid evolved from fabrics containing arsenic by this means.

It is therefore quite improbable that poisoning from woolen goods containing arsenic is due to hydrogen arsenid evolved by the action of a micro-organism.

## A NEW MICROCOCCUS IN POTATO.

Roze (*Journ. de Pharmacie*, 1897, 577), in examining into the parasitic diseases of potatoes, discovered a new micrococcus composed of single round cells with a diameter of 1.5 to 2 micro-millimeters, which he has called *micrococcus delacourianus*.

## LEMON CURE.

v. Noorden (*Wiener Klinische Wochenschr.*, 26) has carefully tried the lemon cure, so much used of late on the Continent in the treatment of chronic articular rheumatism. Estimations of total nitrogen, uric acid, phosphoric acid, calcium and ammonia excreted by the urine give no indication of an influence on the metabolic processes of the body. Practice has shown that the treatment is only temporary and subjective, but never permanent. However, it is not harmful.

v. Noorden recommends the use of potassium iodid, and a reduction of the corpulence of the patient.

J. G. S.

## Among Our Exchanges.

DR. REYNOLD W. WILCOX, of New York, concludes, after a twelve years' study of *Strophanthus*<sup>1</sup>, that the drug increases the muscular action of the heart by direct action on the muscle itself; that it operates more promptly than any other cardiac drug; that it has little if any effect on the caliber of blood-vessels; that it uniformly promotes elimination by the kidneys; that unless doses be too frequently repeated it has no cumulative action like digitalis; and that it differs from other cardiac drugs in that it acts on the heart muscle alone. The uncertainties and discrepancies in results of which complaint is made are

<sup>1</sup> St. Louis *Med. and Surg. Jour.*, Aug., '97.

doubtless due to the fact that there are four species of *strophanthus*. His observations were made with the same preparation of *strophanthus Kombé* with which FRASER made his original investigations. Where *digitalis* disagrees, *strophanthus* should be substituted, especially in those cases where the prolonged use of *digitalis* is liable to cause dangerous vascular spasm. The prompt tonic action of *strophanthus* on the heart, the fact that the stomach usually bears it well, and that it favors free elimination by the kidneys, render it most valuable, if not an invaluable adjuvant in the treatment of *alcoholism*, and more especially in controlling the craving which is doubtless merely one of the symptoms of a toxemia from defective elimination. DR. H. C. BENNETT, of Lima, O.,<sup>2</sup> adds his testimony to that of other observers regarding the value of the drug in respect to this symptom. He finds Tr. *Stroph. gtt.* vij in a tablespoonful of mint water three times a day sufficient to control the craving for spirits in the general run of cases. Practically it works better with most patients to give smaller doses more frequently and to have the patient carry a dose or so with him with strict orders to take the medicine at once, rather than a dram in case the craving come on at some unexpected time, with the assurance which can be confidently given by the physician that if he take the medicine as directed in a little water and follow it with a glass of water, the craving will cease to annoy. According to DR. H. C. WOOD<sup>3</sup> the medical profession fail oftentimes of the benefit of *salicylic acid* in *rheumatism* by the rut we have got into of using the most nauseating, the least effective and the most depressant of its salts, viz., the sodium salicylate, while the most useful are the *ammonium* and *strontium* salts, the former acting the more rapidly and severely, the latter more slowly. Of all these the strontium salt deranges digestion the least, but in acute cases where it is tolerated, more prompt effect can be secured by combining the ammonium salt with it. For the general depression, the nausea, the general wretchedness so frequently resulting from the exhibition of any of the salicylates, *digitalis* and *strychnin* in the same prescription are almost specific—they render the remedy tolerable in nine cases out of ten—and what is true of the salicylate of strontium regarding its toleration by the stomach, DR. LEON L. SOLOMON, of Louisville, Ky.,<sup>4</sup> finds generally true of the other combinations of strontium. *Strontium bromid* can be given in larger doses than other bromids, and for

<sup>2</sup> *Med. World*, Sept., '97.

<sup>4</sup> *American Therapist*, Aug., '97.

<sup>3</sup> *Jour. Am. Med. Association*, July 31, '97.

longer periods, without producing any of the unpleasant symptoms of bromism. Cases which would tolerate neither potassium nor sodium iodid would tolerate *strontium iodid* without difficulty, and without producing the slight ptyalism and fetid breath which we have learned to look for in almost every case, and occasioning but rarely the acne of iodism. Likewise *strontium arsenite* is borne better than the potassium salt, doses of as high as one-tenth grain being given with comparative impunity where full doses of arsenic are indicated. But intolerance of remedies of this class is as often due to our failure to give them sufficiently diluted as it is to the irritant nature of the drug itself. This is peculiarly true of the *bromids*, as was long ago pointed out by NIEMEYER. DR. MATTHEW WOODS, of Philadelphia, calls attention to this,<sup>b</sup> and also observes that unless properly diluted a full dose of bromids will often actually determine an epileptic attack as a reflex of its irritant action on the mucous coat of the stomach, so that in giving the bromids for the cure of epilepsy they should always be given diluted sufficiently to promote endosmosis and a maximum of assimilation with a minimum of irritation. The observation of DR. H. C. WOOD, previously referred to, relative to the advantage of giving heart tonics in connection with salicylates, in order to antidote the depressant effect of the latter, obtains, according to DR. BARTON W. STONE, of Nashville, Tenn., equally with regard to the exhibition of *chloral* and the *bromids*, as sedatives, in cases of *insanity*. He regards their continuous use in the insomnia of incipient insanity as liable to do great harm, by paralyzing intellectual activity and tending to foster the insanity. Where it seems necessary to use them it is important to employ tonics, especially heart tonics, coincidentally. Incidentally DR. STONE makes a pat observation on a medico-political question which it will do no harm to quote. He says: "The physicians of the state can do more than any other class to overcome the general prejudice which exists in regard to the management of asylums. The deepest interest of the insane population demands that they should do so; and the mere fact that the members of the medical corps of the asylums occupy public official positions does not lessen their title to that fraternal courtesy and honorable treatment conferred by the Code of Ethics upon all members of the medical profession. I want to say that these physicians often do not get the protection from the ranks of the profession which is given the private practitioner of medicine. Without fear of arraignment before any board of medical censors, the statesman-doctor with

<sup>b</sup> *Jour. Am. Med. Association*, Aug. 14, '97.

the profitless clientele employs the methods of the political bumner to undermine the reputation of the physician in political position in order to get his shoes. The same methods employed by the private practitioner to secure patronage would subject him to expulsion from any medical society." From which it may be inferred that even in Tennessee there are also Tippecanoe clubs.

In discussing the treatment of *enlarged prostate*, DR. AP. MORGAN VANCE, of Louisville, Ky.,<sup>6</sup> gives a caution which it is well to bear in mind. "Opium," he says, "should never be administered to a man with an enlarged prostate. Often have I known old men to be started rapidly on the downward path by an hypodermic injection of morphin given to relieve the pain due to some accidental injury. Opium destroys what little power there is to empty the bladder, necessitating the catheter, and the usual consequences." DR. J. M. MATHEWS, in the discussion which followed the paper, remarked that the most efficient sedative for an *irritable prostate* that he had ever used was *iodoform* injections into the rectum, in combination with bismuth subnitrate and almond oil. One case of obstinate *nocturnal pollutions*, resisting other forms of treatment by cold sounds, etc., yielded promptly to this injection. Why wouldn't a suppository work as well? It is certainly more easily administered. We all carry cocain with us now, and the more conditions we can use it for the less other things we have to carry. So we welcome the statement of DR. U. G. BUCK, of Spivey, Kan.,<sup>7</sup> that a pledget of cotton soaked in a four per cent. solution of cocain and placed against a rigid os is followed by prompt dilatation. In cases of *pregnancy*, complicated with grave cardiac *insufficiency*, DR. JEWETT, of Brooklyn, maintains that delivery, whether at or before term,<sup>8</sup> should be under chloroform anesthesia. The anesthetic reduces the muscular strain, and therefore the engorgement of the right heart, and it also relieves the shock. Under chloroform the cervix can be dilated without material shock, and prompt forceps delivery will much lessen the overstrain of the heart. Ergot should not be given in these cases. It not only increases the work of the heart by contracting the arteries, but it checks the loss of blood from the uterus, which in these cases is conservative.

<sup>6</sup> *Med. Times*, Aug., '97.

<sup>7</sup> *Med. Brief*, Aug. '97.

<sup>8</sup> *Brooklyn Med. Jour.*, Sept. '97.

## **New Books.**

**REFERENCE BOOK OF PRACTICAL THERAPEUTICS.** By various authors. Edited by Frank P. Foster, M. D., editor of the New York Medical Journal. In two volumes. Vol. II, pp. 618. New York, D. Appleton & Company, 1897.

This volume fully sustains the favorable opinions created by Volume I. Its completeness is remarkable. No remedy, however new, that one can call to mind but is to be found in the proper alphabetical order. Even drugs little known are considered so far as they are known; and those which have failed to secure the approval of the profession receive their verdict. For conciseness the work is admirable and in convenience it is unexcelled. The general index covers 85 pages, double column, and there is an index of diseases and remedies occupying 68 pages. Cross references are numerous, and there is also a list of authors quoted so that a subject or any phase of it can be found with greatest facility. This volume covers the ground from N to Zym, and under mineral waters and wines will be found as concise and complete articles as we remember ever having seen. A supplement at the back of the volume adds items of the very latest knowledge which came to light since the writing of the body of the book. The contributors to Volume II. are as follows: Samuel Treat Armstrong, M. D., Ph. D.; Samuel M. Brickner, A. M., M. D.; Edward Bennet Bronson, M. D.; William B. Coley, M. D.; Floyd M. Crandall, M. D.; Jeremiah T. Eskridge, M. D.; Matthias Lancton Foster, M. D.; Arpad G. Gerster, M. D.; Henry A. Griffin, M. D.; Charles Jewett, A. M., M. D., Sc. D.; Howard Lilienthal, M. D.; Russell H. Nevins, M. D.; Austin O'Malley, M. D., Ph. D., LL. D.; George L. Peabody, A. M., M. D.; Frederick Peterson, M. D.; Samuel O. L. Potter, A. M., M. D., M. R. C. P.; Charles Rice, Ph. D., Phar. D.; Solomon Solis-Cohen, M. D.; James T. Whittaker, M. D. Each article is signed by the contributor.

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**HYSTERIA AND CERTAIN ALLIED CONDITIONS.** Their Nature and Treatment, with special Reference to the Application of the Rest Cure, Massage, Electrotherapy, Hypnotism, etc. By George J. Preston, M. D., Professor of Diseases of the Nervous System, College of Physicians and Surgeons, Baltimore; Visiting Physician to the City Hospital; Consulting Neurologist to Bay View Asylum, etc., etc. Illustrated. Philadelphia, P. Blakiston, Son & Co., 1897. pp. 298. Cloth, \$2.00.

The pictures in this book might lead one to think the author had carried a kodak when he visited his hysteria patients; but he declares that the beautiful drawings are



after those of Richer, while the diagrams were taken from Gilles de la Tourette and from Charcot. After an historical sketch there are chapters on the nature of hysteria, etiology and pathology. Symptomatology. Disturbances of motion: tremor, contracture, paralysis. Convulsive attacks: major and minor attacks. Hystero-epilepsy. The mental condition of hysteria. Visceral and vaso-motor disturbances. Differential diagnosis. Treatment. Electrotherapy. Hydrotherapy. Massage. The rest-cure. Hypnotism. Surgical interference in the treatment of hypnotism.

The handling of these topics, while it will probably be criticised upon certain points by the specialists, is satisfactory to the general practitioner, and it is for this class the work is intended.

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**EYE-STRAIN IN HEALTH AND DISEASE.** With special Reference to the Amelioration or Cure of Chronic Nervous Disease without the Aid of Drugs. By Ambrose L. Ranney, A. M., M. D., author of "Lectures on Nervous Diseases," "The Applied Anatomy of the Nervous System," etc., etc. Late Professor of Nervous Diseases in the Medical Department of the University of Vermont and of the Anatomy of the Nervous System in the New York Post-Graduate Medical School, etc. Illustrated with 38 wood-cuts. Philadelphia, New York, Chicago: The A. F. Davis Co., 1897. Cloth, \$2.00.

As the polemic of an enthusiast, Dr. Ranney's book invites criticism and has received it freely. It is in line with his writings on the same subject for the past ten years and is, indeed, in part practically a reproduction of former papers, with much material added in the way of reports of additional cases, and further reports of some of the cases before published. In his belief that eye-strain is a prolific cause of local pathological conditions, headache, and a certain class of stomach disturbances, and that the correction of any refractive error or lack of muscular balance found is an essential element in the treatment of such cases, he is supported by many oculists and many general physicians whose experience has led them over similar ground, and to this point the possible influence of eye-strain in pathology is established on an unequivocal basis. The criticism of disbelief sometimes heard will be found to come invariably from one who does not and cannot make the necessary examinations, and is unwilling to accept the observations and statements of those who are skilled in such work. In his further claims as to the importance of eye-strain in the production of chorea, epilepsy, neurasthenia and insanity, the circle of his followers is far more limited. The theory of the origin of these various neuroses in eye-strain was first

promulgated by Dr. George T. Stevens some twenty years ago, and for a number of years his claims provoked a spirited and sometimes acrimonious controversy, and Dr. Ranney has been one of the most active and persistent advocates of the theory. So long as the results of his observations are truthfully given and his logic is sound, no criticism of his position is valid except from one who is able and willing to repeat his work by investigating the same classes of cases in the same painstaking and patient manner. Criticism must then be a matter not of words, but of months or years of careful work.

The man in general practice is prone to hesitation in accepting the ideas of the specialist as to the importance of his specialty in questions of general medicine, but Dr. Ranney approached the eye question from the standpoint of a neurologist, and his convictions were forced upon him by the conditions found in his patients, at a time when eye defects were considered to be foreign to the sphere of the neurologist and the general physician. He aims to inculcate the doctrine that every physician should have the ability and the appliances for making at least a preliminary examination of refraction and muscular balance of the eyes; and this not in a slipshod manner, but so that, as far as they go, the observations shall be accurate and reliable, and shall indicate whether or not the patient is to be sent to a specialist to complete the examination. He seeks to convince the physician that in a variety of cases, often obscure in their origin, one of the first procedures should be the examination for eye-strain and the attempt to overcome it if found. The reviewer has long held that every physician in general practice, to insure his own best success, should be prepared to make an accurate examination of the eyes. The physician who does so systematically will soon look with respect on the extreme claims of an enthusiast. By early examinations a diagnosis may often be made at once, when a request for the patient to visit the oculist would lead to its indefinite postponement or the loss of the patient's patronage. For the average patient with good vision is loath to believe that defective eyes may lie at the base of his trouble, and sometimes resents a suggestion to that effect. However, the advertising optician is helping to teach the public, and incidentally often makes work for the oculist.

The basis on which rests the theory of the influence of eye-strain on diverse functions of the organism, as stated by Dr. Ranney, is that "Any excess of nervous expenditure to one organ over the normal amount which should be furnished is done at the expense of the others sooner or later." For this reason a "tubercular diathesis" in a given case may be in reality simply a condition

of defective vitality—*i. e.*, defective nerve force—in various tissues and organs, due to the excessive expenditure of nerve force on the eye. It is to be noted that the theory covers other reflexes than those from the eye, and the reports of Dr. Ranney's cases show that he has not neglected this point, and that his work is that of a neurologist rather than that of an oculist. The importance of *latent* heterophoria is insisted upon with especial emphasis, and the patience and accuracy necessary to its successful treatment are well shown in some of the reports. While the book contains many fully reported cases which appear amply to support the position taken by Dr. Ranney, its value to the reader will be not so much, perhaps, in demonstrating the theories advanced, as in affording him good reason for making or having made such examinations in his own cases, and for that reason should be read by every doubter, and indeed by every physician. A careful and unusually clear résumé of the methods and appliances used in making examinations of refraction and of muscular adjustment is contained in the early pages. For the discovery and estimation of heterophoria he regards a phorometer as of the highest value for accurate work. In this he is undoubtedly right, as no one who has worked with a good phorometer would be satisfied to return to the inconvenience and inaccuracy of a multiplicity of prisms and uncertain holders. F. K. S.

#### PAMPHLETS RECEIVED.

THE TECHNIQUE OF BLOOD STUDY AND EXPERIMENTS IN THE PHYSIOLOGIC CHEMISTRY OF LEUCOCYTES. A study in cell tissues and their significance in tuberculosis. By A. Mansfield Holmes, A. M., M. D., Denver. From *The Medical Record*.

THE ANTISEPTIC TREATMENT AND THE LIMITATION OF CLIMATIC TREATMENT OF PULMONARY TUBERCULOSIS. By E. Fletcher Ingals, M. D., Chicago. From *Jour. Am. Med. Association*.

ATROPHIC RHINITIS. By John Edwin Rhodes, A. M., M. D., Chicago. From *Jour. Am. Med. Association*.

THE HEMIPLEGIC STATE AND ITS TREATMENT. By Archibald Church, M. D., Chicago. From *The Chicago Medical Recorder*.

A PLEA FOR A UNIFORM DIASTASE TEST. By C. C. Fite, M. D., New York. From *Jour. Am. Med. Association*.

SUSCEPTIBILITY OF INFANTS TO TUBERCULOSIS; an illustrated case. By Louis Burchhardt, M. D., Indianapolis. From *The Indiana Med. Journal*.

CONGENITAL CYSTIC DEGENERATION OF BOTH KIDNEYS. By Dr. Louis Burchhardt.

DIFFERENTIAL INDICATIONS IN REGARD TO CHOICE OF OPERATIVE METHODS IN OBSTETRICS. By Louis Burchhardt, M. D. From *Indiana Medical Journal*.

CHEYNE-STOKES RESPIRATION PHENOMENA. By N. S. Davis, Jr., M. D., Chicago. From *Jour. Am. Med. Association*.

THE CARDIO-VASCULAR AND RENAL RELATIONS AND MANIFESTATIONS OF GOUT. By N. S. Davis, Jr., M. D. From *Jour. Am. Med. Association*.

## Society Reports.

### CUYAHOGA COUNTY MEDICAL SOCIETY.

A regular meeting of the Cuyahoga County Medical Society was held on September 2d, this being the first meeting since the summer vacation. Dr. Knowlton presided.

DR. O. B. CAMPBELL exhibited a case of lung disease in a young man of 22 years, who previous to 1894 had been quite an athlete. The case had baffled not only an eminent specialist but several of our best practitioners. A number of cavities in the lungs had at different periods emptied *per orem*, and at one time the patient had a run of diarrhea of a character which led to the belief that an adhesion had formed with some part of the intestines and a cavity discharged its contents in that way. DR. H. W. ROGERS, in examining the case, employed "Wintrich's change of sound," and recommended it as the most delicate test for cavities communicating with the bronchi.

DR. W. C. WEBER exhibited a monstrosity—a fetus which had presented by the breech and been delivered with forceps. It lived two days. A growth two-thirds of the size of the child's head and marked indistinctly with sutures was attached to its occiput by a raphe one-third of an inch perpendicularly, and one and a half inches thick transversely. The sutures and fontanelles of the fetus were closed and no testicles could be made out, and only a rudimentary penis. The doctor had found a description of a similar looking mass, only protruding from the mouth, which had been pronounced a parasite. Dr. Weber promised to try and get permission to dissect the fetus, and if he succeeded would report findings at a later meeting.

DR. CHARLES GENTSCH's paper, "Erysipelas in the Puerperium and Remarks on the Streptococcus Infection," showed much careful study and brought the reader a most generous round of applause. The doctor described a case of lymphangitis beginning in the labia some ten days after confinement, first as a cellulitis, then assuming the appearance of erysipelas. It spread over the entire trunk, causing three abscesses each of about two ounces capacity. He considered it a case of auto-infection, as he had opened an abscess for the patient a few weeks before her confinement. Dr. Ohlmacher being called to see the case made cultures, and suggested Marmorek's serum. But the patient was very low, and as the serum had not been very satisfactorily tested it was not resorted to, but she was kept on stimulants and tonics and finally made a slow recovery. A sister-in-law of the patient developed a very bad throat while attending her, and the husband, from a sty, developed a double marginal blepharitis.

## Notes and Comments.

**Dr. and Mrs. T. C. Martin** have arrived home from their European trip.

**Dr. Nevison** has returned from Europe.

**For Contagious Diseases.** In addition to the new Children's Hospital which is being erected as an adjunct to the City Hospital, two frame buildings, to cost about \$500 each, will be built for cases of contagious diseases.

**Dr. and Mrs. Edward F. Cushing** arrived home from Europe on August 7.

**Dr. Alice M. Perry** has removed her residence to 3919 Euclid Ave., East Cleveland, and her office to The Permanent Block.

**A Text-Book on Insanity**, by Kraft-Ebing, is announced.

**A History of Medicine**, by Roswell Park, is on the market.

**The Northwestern University Woman's Medical School** has increased its list of salaried teachers.

**Diseases of the Stomach.** Their special pathology, diagnosis and Treatment, with sections on Anatomy, Analysis of Stomach Contents, Dietetics, Surgery of the Stomach, etc. This is the title of a book now in the press of the Blakistons and expected soon to be ready for readers. The author is John C. Hemmeter, M. B., M. D., Philos. D., Clinical Professor of Medicine at the Baltimore Medical College.

The publishers pronounce it a very superior treatise, illustrated with many original illustrations, some of them in colors, and we await its advent with interest.

**The Ashtabula, Lake and Geauga Medical Society** held their eleventh regular meeting at Woodland Beach Park, Ashtabula, on Tuesday, September 7th. That this society is a social as well as scientific organization is well attested by the program, which included a dinner and the following list of toasts:

The Medical Profession: Dr. D. J. Merriman, Painesville, O.—

"A wise physician skilled our wounds to heal,  
Is more than armies to the public weal."

Quacks and Quackery: Dr. D. G. Palmer, Geneva, O.—

"For the dull world most honor pays to those  
Who on their understanding most impose."

Doctors' Fees: Dr. H. W. Dorman, Ashtabula, O.—

“ Dimes and dollars, dollars and dimes,  
An empty pocket is the worst of crimes.”

The Future of Medicine: Dr. F. W. Upson, Conneaut, O.—

“ Many things remain to be done.”

“ The” Doctor: Mrs. A. W. Hopkins, Ashtabula, O.—

“ I thought thee wise till I heard thee speak.”

The Ladies: Dr. J. A. Dickson, Ashtabula, O.—

“ If woman be there, there is happiness too.”

The president and toastmaster was Dr. F. D. Case, of Ashtabula; secretary, Dr. A. W. Hopkins. The next meeting will be in Painesville, on the first Tuesday in November.

**The Mississippi Valley Medical Association** will hold its next meeting at Louisville, Ky., on October 5, 6, 7, 8, 1897. Arrangements for the meeting are nearly completed, and we have no doubt the members will enjoy a generous exhibition of Southern hospitality as well as interesting sessions. The committee reports that the indications are good for a very large meeting. The railroads have given the usual round-trip rate of one and one-third fare, on the certificate plan. Titles of papers should be sent to Dr. Thomas Hunt Stucky, president, Louisville, or to Dr. H. W. Loeb, secretary, St. Louis. The following is the preliminary program: J. B. Murphy, Chicago: “ Address on Surgery.” J. V. Shoemaker, Philadelphia: “ Address on Medicine.” I. A. Abt, Chicago: “ The Nature of Croup following Measles.” J. C. Ayers, Cincinnati: “ Further Observations in the Use of Hydrogen Dioxid in the Treatment of Blepharitis Marginalis.” W. F. Barclay, Pittsburg: “ Milk; Its Production and Uses.” J. F. Barnhill, Indianapolis: “ Regarding Hypertrophied Faucial Tonsils.” J. M. Batten, Pittsburg: “ Report of Five Cases of Heart Disease.” J. K. Bauduy, St. Louis: “ Some New Thoughts in the Treatment of Locomotor Ataxia.” A. C. Bernays, St. Louis: Paper. A. F. Bock, St. Louis: “ The Surgical Treatment of Basedow's Disease.” John Young Brown, St. Louis: “ Some Remarks on Appendicitis.” Sanger Brown, Chicago: “ Some Anomalous Conditions of the Spinal Cord, with Report of Cases.” Eug. G. Carpenter, Cleveland: “ Posterior Radicular Neuritis.” W. Cheatham, Louisville: “ Of what Assistance has the Serum Treatment of Diphtheria been to the General Practitioner?” Archibald Church, Chicago: “ The Differential Diagnosis and Treatment of Cere-

bral Hemorrhage and Cerebral Softening." J. W. Cokenower, Des Moines, Ia.: "Neurotic Deformities in Children." A. H. Cordier, Kansas City: "Ectopic Pregnancy, Clinical and Pathologic Phases." J. Homer Coulter, Chicago: Paper. Ephraim Cutter, New York: "Beef—A War Paper." Richard Deway, Wauwatosa, Wis.: "Some Cases of Insanity in Adolescence." Arch. Dixon, Henderson, Ky.: "To Drain or not to Drain." Kennon Dunham, Cincinnati: "The Hypodermic Syringe and its Use in Malaria." C. Travis Drennen, Hot Springs, Ark.: "Report of a Case of Anesthesia Produced by Mercury, with Remarks." Sherwood Dunn, Los Angeles: "Mothers and Daughters." J. Rilus Eastman, Indianapolis: "Diagnosis by Inspection in the Urinary Tract." A. R. Edwards, Chicago: "The Diagnosis of Abscess of the Liver based upon a Study of Twenty-five Cases." Jos. Eichberg, Cincinnati: "Typhoid Fever Treated Without Cold Baths." C. Fisch, St. Louis: "The Antitoxic and Bactericidal Properties of the Serum of Horses treated with Koch's New Tuberculin (T. R.)." F. R. Fry, St. Louis: "Pressure Symptoms After Head Injuries." A. H. Goelet, New York: "The Surgical Treatment of Fibroid Tumors of the Uterus." Spencer Graves, St. Louis: "Appendicitis." H. Hatch, Quincy, Ill.: "Severe Injuries from Electricity, and What Best to Do." A. G. Hobbs, "Mouth-Breathing in Children." Discussion opened by Dr. H. W. Loeb. B. W. Holliday, Cleveland: "The Civic Aspect and Therapy of Some of the Common Neuroses." A. F. House, Cleveland: "Symptoms and Surgical Treatment of Perforated Intestinal Ulcers." W. H. Humiston, Cleveland: "Cocain Anesthesia in Perineorrhaphy." C. C. Jacobs, Frostburg, Md.: "The Treatment of Obstructive Lesions of the Urinary Tract, Anterior to the Bladder, with Especial Reference to the Enlargement of the Prostate Gland." A. C. Klebs, Chicago: Paper. E. L. Larkins, Terre Haute, Ind.: "Appendicitis." F. F. Lawrence, Columbus, O.: "Hysterectomy." Elmer Lee, New York: "The Elimination of Empiricism in the Treatment of Pneumonia." I. N. Love, St. Louis: "The Relations of the Secular Press to Medicine and the Public." C. F. McGahan, Aiken, S. C.: "The Treatment of Pulmonary Phthisis." A. H. Meisenbach, St. Louis: "A Plea for Early Operation in Cholelithiasis." L. Harrison Mettler, Chicago: "Neuroses of Gout." Robt. T. Morris, New York: Paper. Harold N. Moyer, Chicago: Paper. A. M. Owen, Evansville, Ind.: "Cathartics and Constipation." A. J. Ochsner, Chicago: "Treatment of Hernia in Old Men." Curran Pope, Louisville, Ky.: "Sanatoriums a Necessary Factor in the Treatment of

Chronic Diseases." Joseph Price, Philadelphia: Paper. J. Punton, Kansas City: "The Growing Needs of Medical Political Organization." D. C. Ramsey, Mt. Vernon, Ind.: "Municipal Sanitation of Tuberculosis." A. Ravogli, Cincinnati: "Tuberculin in Dermatology." B. Merrill Rickets, Cincinnati: "Abdominal Incision for Ascites." Byron Robinson, Chicago: "The Classification of Peritonitis." Enno Sander, St. Louis: "The Carlsbad Springs of the United States of North America." E. W. Saunders, St. Louis: "Therapeutic Properties of Infant Foods." E. J. Senn, Chicago: "The Treatment of Suppurating Fistulous Tracts." E. B. Smith, Detroit: "Experimental Surgery." J. O. Stillson, Indianapolis: "Retro-bulbar Optic Neuritis." L. Strauss, St. Louis: "Primary Tuberculosis of the Rectum with Report of Cases." J. A. Stucky, Lexington, Ky.: "Intratympanic Surgery in Chronic Suppuration." J. B. Taulbee, Mt. Sterling, Ky.: "The Treatment of Wounds by the Open Method." H. M. Thomas, Chicago: "Experimental Work on the Penetrability of Vaporized Medicaments in the Air Passages." K. K. Wheelock, Fort Wayne, Ind.: "Plastic Operation for Reforming Interpalpebral Space." Alex. C. Wiener, Chicago: "Congenital Dislocation of the Hip." Frank Woodbury, Philadelphia: Paper.

**The Specific Action of Quinin in Malaria.** Dr. E. C. Register, editor of the *Charlotte Medical Journal*, read a paper with this title before the North Carolina Medical Society.—(*St. Louis Medical Era*.) After many years of study, both clinical and microscopical, the doctor arrives at the following conclusion in reference to the specific action of quinin in the continued forms of malarial fever. He says a malarial fever without complications will subside after the plasmodia of malaria disappear from the blood; that we have in quinin the means to eradicate completely malarial poison from the body; that malarial fever occurring in a previously healthy subject, and in the Central United States, if at once recognized and properly treated, never ends in death; that it is speedily curable, never continues, provided the nature of the disease be recognized and appropriate treatment employed.

Dr. Register has made microscopic examinations of the blood of several hundred patients suffering with remittant malarial fever, and has studied closely and thoroughly the crescentic and ring-shaped bodies which he says are the forms of the parasite which are responsible for the continued types of this fever, and he finds that the reason quinin does not always affect these irregular forms of the poison is a defective administration. He contends that the drug is very imperfectly absorbed when given



by the stomach and when the patient has a temperature of over 102 degrees, and says that in cases of continued malarial fever, if distinct and well marked intermissions of the fever are produced artificially by the use of antipyrin, acetanilid and phenacetine, the crescentic and ring-shaped bodies will disappear after the administration of quinin as quickly as the spherical bodies that are found in an ordinary case of intermittent-fever. In reference to the belief that the forms of the parasite that inhabit the blood cells are not acted on by quinin, he says: "There is no doubt in my mind that this belief is erroneous. Besides my own observations, I have been able to collect the opinions of thirty-two authors touching upon this point, and twenty-eight out of the thirty-two believe that the endo-globular or intra-corpuscular forms are not, on this account, the cause of an uncontrollable fever, and that its proximity to the blood cell does not, in any way, protect it from the action of quinin."

**Specialists and Specialties.** A medical specialist (says the *Archives of Pediatrics*) differs widely from the poet, who, we are told, is "born, not made." The medical specialist is made, not born. No specialist has ever yet been born full-fledged from a medical college, though occasionally a young man imagines that such a miracle has been performed. The fledgling who supposes that a medical diploma and a post-graduate course can make a specialist, deceives himself and endangers the safety of the community. Such specialists have done untold harm to the profession. The eye, the ear, the skin, are not simple appendages, each performing its duties independent of the rest, to be treated without reference to the other organs and the condition of the body at large. The successful specialist must also be a competent general physician.

In no department of practice is this more true than in pediatrics. No man can ever become a successful practitioner among children who has not a broad and thorough knowledge of general medicine. We have rarely seen a better description of the method by which the successful specialist is made than the following, taken from the address of Dr. Kelley, referred to in the preceding article:

"I tell my young friend that it will be time enough when he has thoroughly grounded himself in the general principles and practice of his profession, and had ten or fifteen years of experience, to think of devoting his time to some one line more than others. I would not discourage any young practitioner from endeavoring to increase his knowledge and perfect his skill in certain particular lines, as he may have talent, taste, or opportunity, for

the field has become too wide for one to become expert in everything. If, by-and-by, he becomes skillful beyond his fellows in a certain line of work, and they keep him so busy therein that he has no time for anything else, I can see no objection to his doing that work, whether he is called a *specialist* or whether he is called an *expert*. If all specialists were made in this way there would be no cause for complaint.

"In regard to pediatrics, it is probable that in all large centers of population certain doctors will become known as particularly expert in diseases of children, and whether they are called pediatricists or specialists matters little—they will be called frequently in consultations, and their practice will be largely, perhaps in some instances entirely, among children."

**Resolutions Against Senate Bill 1063.** At a meeting of the Northern District Medical Society, held at Sandusky, O., July 29th, the following preamble and resolutions were unanimously passed:

"WHEREAS, A bill is now pending in the Senate of the United States, intended to render what is known as 'Vivisection' illegal in many instances, and to throw serious or fatal obstacles in the way of its performance in all instances, thus seriously interfering with the work of a large number of our most educated and humane citizens, as well as the work of a number of the departments of the government itself; therefore, be it

"*Resolved*, That in the opinion of this society all efforts of legislation, such as that referred to, are the outgrowth of a mistaken sentiment that in seeking to protect animals from alleged cruelties—largely fanciful and exaggerated—would not hesitate to inflict greater cruelties on man by denying to medical science one of its most efficient means for discovering the true nature of diseases and for devising sanitary and therapeutic measures for the prevention and cure thereof. With such sentiments this society has no sympathy. Had it dominated in the past, humanity would have been deprived of some of the greatest blessings ever conferred upon it; and were it to become dominant in the future, scientific medicine, now so promising of great achievements, would be disastrously checked in its progress. Be it further

"*Resolved*, That we do hereby earnestly appeal to the Senators and Representatives to use their influence to prevent the legislation mentioned, thoroughly convinced as we are that a principle antagonistic to the best interests of the human race is involved, and one that should never receive the indorsement of such an enlight-

ened body as the Congress of the United States. Be it further

"*Resolved*, That a copy of this preamble and these resolutions be transmitted to each of the Senators and Representatives of the districts represented by this Medical Society."

**Dr. John G. Carroll**, of 25 Church St., died on Sept. 12th, of pleuro-pneumonia. A biographical sketch of Dr. Carroll will appear in our next issue.

**Another Medical College.** The *Texas Medical Journal* has the following editorial announcement, which of course being in a medical journal and being an editorial is to be taken as literally and not for a moment satirically true:

There is no limit to the patriotism and enterprise of Texas doctors. No Texas town is now thought to be complete without its medical college, and the physicians of Weatherford, keenly alive to this fact, have hastened to supply a long-felt want. They have introduced, however, an innovation, which will surely be appreciated by the farmer class—whose sons will be made doctors, to-wit: They will take pay in kind. We give below the announcement of the first session of the College of Physicians and Surgeons of Weatherford.

"As medical colleges seem to be the fad in every village in the state, we beg leave to submit a prospectus.

#### PROSPECTIVE.

"The first annual opening of the College of Physicians and Surgeons of Weatherford, Texas, will take place the first Monday in September, 1897.

"Introductory lecture will be delivered by Prof. Oliver Morse, M. D., which will be largely devoted to the religious and moral duties of the medical student.

"Being aware of the long-standing necessity of a more extended, accessible and thorough medical education for the young men of our country, we, the following medical gentlemen, have organized ourselves into a faculty for the purpose of offering the above and much needed opportunities to the young men of our land. Owing to the great demand for business property in our city, we find it difficult to secure a suitable building for our first session; therefore, we have secured the upper story of Blackwell's livery stable, corner Spring street and York avenue, as the only place at our command for the present.

"The instruction will be both clinical and didactic. Our clinical and hospital facilities are unequaled. The county jail affords all needed hospital instructions.

" Our professor of medicine, Prof. O. Morse, has the honor of being county physician, therefore has absolute control of all sickness and infirmities at the county poor-farm, where he will hold tri-weekly clinics, at which time the medical class will be carried free of charge to the poor farm, infantry style.

" In addition to Prof. Morse's other and varied duties, he will endeavor to find time to deliver once a week a lecture on moral philosophy, as pertains to the duties of medical students and physicians.

" To enable poor young men to secure medical education, the faculty, not being pressed financially, will accept in lieu of cash, cord wood, Johnson grass, chickens, eggs, or any other commodity the faculty can consume.

" To be eligible for matriculation, the candidate must be advanced as far as " Baker " in the old blue-backed speller, and know the multiplication table thoroughly. The candidate must be of good moral character, and at least have no present indictment pending, and in event of having served a term in the penitentiary, he must have had his citizenship restored by the governor.

#### QUALIFICATIONS FOR GRADUATION.

" The candidate must be at least 21 years of age, and must have attended three courses at a regular medical college, the last of which must have been in this institution, and no term to be less than three weeks' duration.

#### TEXT-BOOKS.

" Gunn's ' Family Medicine. '

" Treatise on Pierce's Golden Discovery.

" J. Wilford Hall on Constipation.

#### FACULTY.

" O. Morse, M. D., D. D., Professor of Principles and Practice of Medicine, Dean.

" A. R. Barry, M. D., LL. D., Professor of Medical Jurisprudence and Toxicology.

" G. H. Sandefer, M. D., Professor of Principles and Practice of Surgery and Clinical Surgery.

" L. Lamier, M. D., Professor of Pathology and Bacteriology.

" Alonzo Sims, M. D., Professor of Diseases of Women and Clinical Gynecology.

" Alf. Irby, M. D., Professor of Obstetrics.

" Wm. Maddox, M. D., Ph. D., Professor of Chemistry.

" L. F. Ferry, M. D., Professor of Rectal and Genito-Urinary Surgery.

"I. E. Smith, M. D., Professor of Diseases of Eye, Ear, Nose and Throat.

"C. MacNelly, M. D., Professor of Anatomy.

"———, Professor of Materia Medica and Therapeutics.

"L. Wilder, M. D., Demonstrator of Anatomy.

"B. Brazolton, M. D., Assistant Demonstrator.

"Chas. Glaze (colored), Janitor.

"We have exhausted the profession in the town in the faculty, and as soon as a new one strikes town we will fill the vacancy."

[LATER:—A new man hearing that there was a vacant professorship at Weatherford, hastened to locate there to secure it.

He went from the flourishing city of Hogwallow, a town too slow for him; it had no medical college.—[ED.

**Would She Have Been so Careful of her Doctor?** Ian Maclaren, in one of his lectures in Boston, gave the following delicious bit of Scotch humor:

It was the story of a parishioner of the late Dr. Norman McLeod, who, on her husband falling ill with typhus fever, called in another clergyman. "Why didna ye fotch your ain minister?" was asked. "D'ye think," was the woman's reply, "we would risk Norman wi' typhus fever?"

**Compulsory Vaccination of School Children.**—The question whether or not the State Board of Health (says the *Jour. Am. Med. Assoc.*) or the school directors of a district, acting under its orders or otherwise, had any power to impose, as a condition of the admission of children to the public schools, the requirement of vaccination, was considered by the Supreme Court of Illinois in the case of *Potts vs. Breen*. Its decision was that neither had the power. No such power had been conferred on the State Board of Health, it said, unless by the broad and general language of the statute which provides that "the State Board of Health shall have the general supervision of the interests of the health and life of the citizens of the State." But that was not intended to confer plenary powers on the board. It had and could have no legislative power. Its duties were purely ministerial and the foregoing provision could not be held to confer that broad discretionary power contended for, to prescribe conditions upon which the citizens of the State might exercise rights and privileges guaranteed to him by public law. As recently held by the Supreme Court of Wisconsin in a similar case, the powers of the State Board of Health are

limited to the proper enforcement of statutes, or provisions thereof, having reference to emergencies requiring action on the part of the agencies of government to preserve the public health, and to prevent the spread of contagious or infectious diseases. The right or privilege of attending the public schools is given by law to every child of proper age in the state. Whether the legislature has the power to make vaccination a condition precedent to the exercise of this right or not, was not decided. It would not be supposed that it had undertaken to do so by mere implication. No one would contend that a rule enforcing the use of antitoxin as a condition precedent to the admission of a child to the public schools would, as the law now is, be valid, however fully satisfied by learning and experience that it would prevent the spread of diphtheria. And when vaccination is compulsorily applied it must, like all other civil regulations, be applied in conformity to law.

In cases of emergency it might be proper, in the exercise of the police power of the state, to exclude children from the public schools on the ground that they refuse to be vaccinated.

Undoubtedly, also, children infected or exposed to small-pox may be temporarily excluded, or the school may be temporarily suspended. But this power ceases when the necessity ceases. Nor have school directors and boards of education authority to exclude children from the public schools for refusing to be vaccinated, unless in cases of emergency.

**The following Poem** is from "Rhymes of The Times," a modest volume, a small edition of which appeared some few years ago. The title-page credited the authorship to "A Country Doctor," who proved upon inquiry to be Dr. A. E. Ewing, of Peninsula, O. The doctor was even then stricken in years and has since laid down life's burden and gone to his reward. He was an uncompromising foe of dishonesty in any form; and his pen—if indeed he did not use a stick of caustic in lieu of pen—and his gift of rhyming were most often employed in stinging satire directed against quackery and hypocrisy wherever found:

#### MODERN ETHICS.

The honest man has ne'er a chance  
Among his fellows now-a-days;  
If one don't know all things about  
Old Nature and her secret ways,  
We set him down as but a dunce,  
And he must leave the case at once.

But if, like "Cunderingo Bliss,"  
He's got a conscience made of brass,  
He's sure to hold out to the end,

Though he may be a stupid ass.  
Quackery in all things is the game,  
Without it you'll be weak and lame.

In physic all have found it out—  
Divinity is just the same—  
The empty head is most erect,  
While modest wisdom's sadly tame;  
If you lack knowledge make a show,  
And every one will think you know.

Assurance is a mighty power;  
In this 'twill never do to fail;  
When things look doubtful never yield;  
Trust to your "cheek," and you'll prevail;  
You must assume God's ways to know  
Beyond all mortals here below.

Humbug and swindle is the rule;  
Get all you can, no matter how;  
If friends stand in the way down with 'em,  
Regard not plighted faith nor vow;  
If you would see your work well done  
You must "look out for number one."

If each will care for number one,  
Then all, of course, will get due care;  
So you should humbug all you can,  
And then, mayhap, you well may spare  
A trifle from your golden hoard  
To build up churches for the Lord.

If conscience is allowed to rule,  
And you must give as well as take,  
The chances are you'll badly fail  
In getting rich—a sad mistake;  
You must have wealth at any cost,  
No matter if your souls are lost.

As to your having souls at all,  
There's always some little doubt;  
But, anyway, they're very small—  
Their loss might never be found out—  
A scientist could hardly hope  
To find them with a microscope.

So push ahead, and in the end  
Your case is clear—you can not fail;  
What's wrong you need not strive to mend,  
And then your fortune will prevail;  
You cannot hope life's game to win  
With too much fear of mortal sin.

Such is the creed that rules our times,  
So pious knaves will sometimes steal  
Wherever they can find the dimes;  
For, short of cash, they needs must feel  
A want of power to help the Lord  
In sending forth his precious word.



## Original Articles.

### ON BLOOD CLOTTING.\*

JOHN G. SPENZER, M. D., PH. D., CLEVELAND,

Professor of Chemistry and Pharmacology, Cleveland College of  
Physicians and Surgeons.

It would be difficult to imagine a more interesting and complex problem in physiologic chemistry than the study of the coagulation of the blood. Certainly few other subjects have in recent years occupied a like number of investigators, with such elaborate experimentation. This is undoubtedly largely due to the importance which the process possesses from a physiologic, pathologic and medico-legal aspect. Preliminary to a consideration of our present knowledge of blood clotting, some general data on the blood will be introduced.

In the experimental collection of pure plasma from blood, two prime difficulties present themselves,—the rapid coagulation of the latter, and the troublesome separation of the blood corpuscles. Since it is impossible to filter blood, the rapidity with which its corpuscles settle is the decisive factor in answering the question whether it is possible to obtain the pure plasma. The coagulation takes place in cold-blooded animals more slowly than in the warm-blooded, and consequently it is easier to obtain plasma from the former than from the latter. In the blood of the horse a settling of the blood corpuscles occurs so rapidly that a quantity of uncoagulated plasma can be obtained. For this purpose the blood is caused to

\*Read before the Cuyahoga County Medical Society June 4th, 1897.



flow from an artery into a dry vessel cooled to  $0^{\circ}$  C., and the upper layer or plasma is carefully separated while the vessel remains surrounded with ice. In this manner it is often possible to obtain plasma amounting to one-half of the original volume of blood. Such a separation is not possible in the normal blood of man, ox, sheep, swine, dog, or rabbit.

Still, some plasma may be obtained by the venesection of persons suffering with inflammatory diseases, or from very hydremic subjects, before clotting takes place. If the cooled vessel be greased inside with vaselin the clotting of the blood is also retarded. By the addition of neutral solutions of the alkaline and alkaline-earth salts, such as sodium sulphate or chlorid, potassium nitrate, or magnesium sulphate, to the fluid blood, the coagulation of the same may be prevented for some time or, in fact, completely arrested if sufficient be added. Hewson<sup>1</sup> first used sodium sulphate for this purpose with good results. Denis<sup>2</sup> subsequently recommended one volume of a saturated solution of the salt to six volumes of blood. Alexander Schmidt<sup>3</sup> used a solution of magnesium sulphate with great success, Gautier,<sup>4</sup> sodium chlorid.

The proper separation of the blood corpuscles from the plasma is of particular interest in studying the coagulation of fibrin. Hewson<sup>1</sup>, over a century ago, claimed that the red blood corpuscle played no part whatever in the coagulation of the blood, and that the coagulability of lymph free from red blood corpuscles is independent of any product of the latter; still the supposition has been repeatedly made that blood clotting is induced by a substance derived from the red blood corpuscle during this process. This theory was advanced by Prévost and Dumas,<sup>5</sup> and later by Heynsius.<sup>6</sup> Johann Mueller<sup>7</sup> observed that frog's blood, when mixed with diluted sugar solution, could be filtered from the blood corpuscles before coagulation of the mixture set in; the conduct of horse's blood showed quite conclusively that the substance which occasioned the coagulation was contained in the plasma. Whether this substance is produced by the red blood corpuscles is another question, and is very doubtful; at all events the plasma of the circulating blood contains this coagulable substance. In the coagulation of the blood or

its separated plasma the lower layer usually coagulates first, passing rapidly upwards without occasioning the least diminution in volume. After a longer or shorter time a change takes place in which the coagulum contracts itself, forming a gelatinous mold of the vessel containing it, but of smaller diameter. The coagulation of the blood cake is hastened by agitation or jarring of the mass. The clot contains almost all of the red blood corpuscles confined within it, and since in blood at rest the greater part of the red blood corpuscles have settled to the bottom, and as coagulation usually begins in the lower layers, the latter contain more red blood corpuscles than the upper,—therefore are softer and more gelatinous and contract less than the upper. If the upper part of the fluid has become clear through the precipitation of the blood corpuscles before the coagulation, this part then contracts more strongly and uniformly. This layer, free from red blood corpuscles but still containing many leucocytes, has received the name *crusta inflammatoria* or *crusta phlogistica*, because the older physicians noticed its formation in the blood taken from persons suffering with inflammatory disorders, whereas they were unable to find it in healthy people. This so-called inflammatory crust is found on the clotted blood in cases of pneumonia, erysipelas, acute rheumatism and hydremia, and seems to be normal in the advanced stage of pregnancy. It is very strongly marked when the red blood corpuscles have settled rapidly, as in horse's blood. In spite of the statement<sup>8</sup> that in coagulation no heat is produced, the fact has never been definitely determined, even though it is to be supposed that in the precipitation of a dissolved substance out of its solution a small quantity of heat is set free. However, since when blood stands after bleeding some oxygen enters into a firm union, this may occasion the rise in temperature observed independently of the formation of fibrin.

If the blood drawn from an artery be rapidly shaken alone, or with mercury, sand, or splinters of glass, or stirred with a rod, the coagulum deposits on the vessel walls and on the surface of the body introduced in the form of an elastic, white, fibrous or skin-like mass, and the liquid, poured off or strained through a cloth, no

longer possesses the property of coagulation. It is *defibrinated* blood.

However, diseased conditions exist in which several coagulations of one and the same portion of blood may take place, so that the serum poured off from the coagulum clots again and again, whether it contains red blood corpuscles or not. Polli,<sup>9</sup> who noticed and described this peculiarity, claims that a special coagulating substance exists in these troubles. This is not the case, however, for it is not due to a coagulating substance, but to one inducing coagulation.

The blood within the blood vessels of cadavers is usually completely clotted, still, cases have been noted in which the blood was fluid eight to twenty-four hours after death; but after its removal from the body it soon coagulated at once, completely, or in several successive portions as previously mentioned. In severe scorbutus the blood is said to have lost the power of clotting completely; in leukemia the clots in the heart are extraordinarily soft, white, and liquify easily, because of the large number of leucocytes which they contain.

The influence exerted by living tissue in the preservation of the fluidity of the blood has not been explained, although studied by Sir Astley Cooper<sup>10</sup> and more extensively and carefully by E. Brücke<sup>11</sup> on the isolated heart of the toad, Hewson,<sup>12</sup> the carotid of the dog, and Glénard,<sup>13</sup> the jugular of the dog; they found that the blood remained fluid for a number of hours. Frédéricq has used this method to obtain blood plasma from the horse. It is a well-known fact that a clot will be deposited from the blood stream on necrotic parts of the vessel wall, also in inflammatory conditions of the vessel wall, on the atheromatous lime plates and aneurisms of the arteries, and on foreign bodies brought into the systemic circulation. Virchow<sup>14</sup> found, on introducing globules of mercury, sassafras pith and bits of caoutchouc into the veins, that they became covered with clotted material. This has been corroborated by Semmer,<sup>15</sup> Zahn,<sup>16</sup> Eberth and Schimmelbusch,<sup>17</sup> and Loewit.<sup>18</sup> According to Zahn, a number of colorless corpuscles are first deposited on foreign bodies which come into contact with the blood stream, without thereby producing a permanent

thrombus, and they can again detach themselves and enter the stream. A deposit of fibrin, however, is not so easily removed.

THE CHEMISTRY OF COAGULATION.—Concerning the chemistry of the process of the coagulation of fibrin there are a number of theories which have, however, only received general recognition as regards the principles on which they are based; whereas certain points in the process occasion a conflict of opinion. A very prominent and to some a very acceptable theory is that proposed by Alexander Schmidt<sup>19</sup> after years of patient study. Plasma differs from blood serum through the presence, in the former, of a fibrin-producing substance called fibrinogen, first prepared by Schmidt, and resembling egg globulin. Fibrinogen is found in the blood plasma, normal and pathologic transudations, such as lymph, chyle, pleural and pericardial transudations, hydrocele fluid, in blister fluids, and probably also in the coagulable fluid called blood in the avertebræ. The researches of Schmidt showed, in corroboration of Buchanan,<sup>20</sup> that hydrocele fluid could be kept unaltered for a considerable time, but if a few drops of blood were added coagulation took place within a few minutes or hours. He proved that different fluids of the tissues, like defibrinated blood, were capable of transforming the fibrinogen into fibrin. He separated the fibrinogen and another substance which was called fibrinoplastic ferment. He claimed that fibrinoplastic ferment was necessary for the coagulation, and that it was developed in the white blood corpuscle after it had left the body; also that it did not exist in normal blood, and, lastly, that in its production many white blood corpuscles were destroyed. He further claimed that the ferment was formed by a fermentative process, that a temperature below  $+0.5^{\circ}$  C. and some salt solutions prevented this process and consequently the formation of the ferment, and as a result no coagulation took place.

Therefore, according to Schmidt, blood clotting is an enzymotic or fermentative process. The blood corpuscles, and particularly the white corpuscles, he says, contain a zymogen, *prothrombin*, from which, through the influence of another body also found in the blood cell and called *zymoplastic substance* (according to Lilienfeld<sup>21</sup> noth-

ing more than mono-potassium phosphate), which by the destruction of the blood corpuscles produces the finished fibrin ferment or *thrombin*. Mantegazza<sup>22</sup> also pointed to the relationship between the production of fibrin and the white blood corpuscle, but still made no definite suggestion as to the manner of its action; whereas Addison,<sup>23</sup> in 1841, and Beale,<sup>24</sup> in 1864, supposed that fibrin is formed from the white blood corpuscle. Schmidt's idea that the production of fibrin is enzymotic has been supported by Hammarsten,<sup>24</sup> who at the same time believes that, in the formation of fibrin, fibrinoplastic substance is not alone active. Schmidt's investigations made this very probable. He proved very conclusively that fibrinogen and the so-called ferment (*fibrin ferment*) gave no fibrin, that the fibrinoplastic substance must in some unknown manner be influential in the process.<sup>25</sup> Hammarsten<sup>26</sup> now corroborates this. Hayem's statement<sup>27</sup> that the microcytes or, as he supposes, the producers of the red blood corpuscle, cause the coagulation of fibrin has not been positively proven. It is interesting to note here that fibrin ferment has all the properties of the other enzymes. Its aqueous solution resembles a globulin,<sup>28</sup> and therefore is entirely free from phosphorus. This statement is in accordance with the notions of Pekelharing,<sup>29</sup> who considers it a calcium compound of a nucleo-albumin, as well as those of Lilienfeld<sup>30</sup> and Kossel.<sup>31</sup>

Of the numerous other investigations and explanatory experiments on the process of fibrin coagulation, which either give no further information or are contradictory to that of Schmidt, but a few will be mentioned. Some claim that fibrin formation is the result of the action of an acid, or the neutralization of the alkali,<sup>32</sup> or of free carbonic acid,<sup>33</sup> and by the evaporation of ammonia from the coagulating fluid,<sup>34</sup> which latter was soon proven to be erroneous by Lister.<sup>35</sup> Lately Schmidt<sup>36</sup> claims that the fibrin generators are decomposition products of a substance inherent in all cells and produced from them. He calls this substance *cytoglobin*; it has also been studied by Demme<sup>37</sup> and Knupffer.<sup>38</sup> It splits up through the action of the blood plasma into *paraglobulin*, also called *fibrinoplastic substance*. From cytoglobin, by the action of acetic acid a proteid is split off called *preglobulin*.

According to v. Rennenkampf<sup>39</sup> and Kollmann,<sup>40</sup> who injected intravenously cytoglobin and preglobulin respectively into an animal, both substances produce paraglobulin in the circulation, but preglobulin more easily and rapidly than cytoglobin. This transformation takes place in stages. The substances, being detected in the blood while retaining their solubility in alkalis and neutral salts, are at first difficultly soluble in acetic acid, but become more and more soluble until they resemble paraglobulin exactly. The paraglobulin thus produced is both chemically and physiologically identical with that obtained originally from the blood. *Fibrinogenous substance*, the other necessary factor in the production of fibrin, according to Schmidt, also originates from cytoglobin, so that the cell constituents furnish the entire material for the formation of fibrin.

v. Rennenkampf found that 0.05 g. of cytoglobin per kilo of animal experimented upon, when brought into its circulation, was changed to paraglobulin in forty-five minutes. Kollmann obtained similar results when he injected preglobulin; the alteration to paraglobulin was, however, much more rapid. From this it would be expected that the subsequent transformation products of cytoglobin, *i. e.*, paraglobulin and fibrinogenous substance as direct fibrin producers, would be disposed to increase the amount of fibrin if injected intravenously. Kroeger's<sup>41</sup> experiments, however, show that this is not the case.

Fibrinogenous and fibrinoplastic substances unite, according to A. Schmidt, under the influence of fibrin ferment, to form a substance, *fibrin*, insoluble in water. Almost all authorities justly combat the idea of three substances being necessary for fibrin coagulation, or that any proteid other than fibrinogen is essential.<sup>42</sup> According to G. Freund,<sup>43</sup> adhesion plays the most important part in the coagulation of fibrin, adhesion and a mixing of the calcium and magnesium salts, according to Freund and E. Ludwig, which, *in vivo*, are principally in the cellular elements of the blood, and which are chemically active in the process of clotting. The introduction of calcium salts therefore increases the tendency to clotting in the blood.<sup>44</sup> From this it would seem as if the fibrin

were in combination with calcium in the form of an easily soluble proteid in the plasma of the blood, which Lilienfeld<sup>45</sup> calls *thrombosin*; even pure fibrin always contains calcium.<sup>46</sup> In comparison, the curd of milk (or cheese) is paracasein calcium, whereas fibrin is thrombosin calcium.

Lilienfeld,<sup>47</sup> while he accepts the existence of the fibrin ferment of Schmidt, claims that other substances can split the weak fibrinogen molecule with the formation of fibrin, and among these a substance produced from the nucleus of the white blood corpuscle; further, that it is a function of the cell nucleus of the leucocytes and not of the cell structure. This peculiar activity of the cell nucleus is due to *leuconuclein*, found in all nuclei, a component of *nucleohiston*, which latter is a compound of a basic proteid called *histon* with leuconuclein. Histon was first prepared by Kossel<sup>48</sup> from the red blood corpuscle of chicken's blood. Like the nucleus of the white blood corpuscle, leuconuclein also acts as a powerful clot producer. The distinctly acid solution of leuconuclein occasions, in a manner analogous to the action of fibrin ferment, a coagulation of fibrin in a mixture prone to clot, which, besides fibrinogen, contains a sufficiency of calcium salts—as in blood plasma free from cells, fibrinogen solutions and transudates containing lime, as also peptone plasma. Injected into the circulation it conducts itself analogously, in that instantly thrombosis of the vessels occurs and death quickly follows.

A curious antagonism exists between the two components of nucleohiston; leuconuclein, as well as its derivative, nucleinic acid, favors fibrin coagulation, whereas the basic albumose, like histon, in no wise favors, but on the contrary has a decided preventive effect on the coagulation. Lilienfeld has noticed that nucleohiston prepared from leucocytes, and which really corresponds to the preglobulin and cytoglobin of Schmidt and the *tissue fibrinogen* of Woolridge, greatly increases the coagulability of fibrinogen solutions containing lime salts, or the cold filtered plasma of horse's blood. The leucocytes contain 68.78 per cent. of leuconuclein, together with 8.00 per cent. of histon. Lilienfeld also believes that besides the white blood corpuscles, the blood

plates are concerned in blood clotting, since they contain a nuclein body.

To illustrate the antagonism between the components of nucleohiston,—if a solution of nucleohiston be injected into the circulation of an animal extensive thrombosis results, with the instantaneous death of the animal, whereas the blood let out of a vein has lost its coagulability.<sup>49</sup> In such injections, according to Lilienfeld,<sup>50</sup> the nucleohiston is split up by some unknown force into its two components, and then the leuconuclein demonstrates its power, producing thrombosin from the fibrinogen, which in contact with the calcium salts dissolved in the plasma forms fibrin, while the histon seems to render the remaining blood non-coagulable. In fact, it has been discovered in blood under these conditions.

It is interesting to know why, during life, thrombosis of the circulating blood does not take place, since blood corpuscles are being constantly destroyed, and under these conditions fibrin ferment and nucleohiston are set free. However, certain observations point to the supposition that this destruction does not take place in the vessels, but more likely in the tissues, so that under normal conditions the circulation remains free from clot-inducing substances.<sup>51</sup>

Many substances which in small quantities favor fibrin coagulation, in larger amounts remove it entirely. Of substances which from the beginning prevent clotting even in small quantities, *leech ferment* has been studied by Haycraft.<sup>52</sup> In man, the extract of the leech ferment, even if injected intravenously, is not poisonous,<sup>53</sup> whereas commercial peptone is toxic, and in doses sufficient to prevent clotting lowers the blood pressure very markedly. The action of peptone and leech extract can be counteracted or diminished in various ways. Thus fibrin ferment prevents or arrests it; also hydrochloric acid, arabinic acid, etc., and in part their salts.

The sterilized aqueous extract of the powdered heads of the medicinal leech, *Sanguisuga medicinalis*, Hirud. (Brit.), hardened in alcohol, is now to be found on the market. Two cubic centimeters of this extract contain the active principles of one leech. After Haycraft<sup>54</sup> had shown that the secretion of the mouth of the leech tended



to prevent the coagulation of the blood, Dickinson and Landois and Schultze found that the aqueous extract of the leech's head had the same property. Landois has recommended the addition of leech extract in transfusions, in order to obviate the necessity of defibrinating the blood. It might also be of great service in overcoming the disposition or likelihood of clotting in the clamping of important blood vessels, such as the common carotids, as recommended by Crile.<sup>55</sup>

Recently Bosc and Delezenne have made the interesting observation that the addition of leech extract in order to prevent the coagulation of blood made the latter very resistant to putrefactive processes, so that they could keep it for a month without decomposition.

Since it would seem improbable that this action can be referred to the extract, it must therefore be supposed that the leech extract produces a change in the blood. This is really the case, as can be demonstrated under the microscope; the white blood corpuscles seem to be in a state of exalted vitality. Not only here is the battle of the leucocytes against putrefactive bacteria assisted, but it is possible to obtain an actual immunity and, in fact, an absolute prevention of experimental infection.

Of the poisons which occasion clotting in the vascular system, the most important is foreign blood, defibrinated or undefibrinated, not only when it is introduced into the circulatory system by transfusion, but even when given subcutaneously or intraperitoneally. According to experiments by Hericourt and Richet, 40 g. of dog's blood, 7 g. of duck's blood, or 0.5 g. of eel's blood per kilo weight of rabbit is fatal to the animal, if injected into the peritoneum. Horse's blood, if the animal has fasted for a long period, is still more poisonous, though with a bread diet it is non-poisonous. Kobert<sup>56</sup> regards the transfusion of lamb's blood as a disgrace to the second half of the present century.

Given by the stomach, foreign blood is likewise poisonous, but much less active than if absorbed from the abdominal cavity. Nevertheless, the drinking of ox blood was among the ancients a never-failing death-penalty. For this purpose undefibrinated blood was used, which is much more poisonous than defibrinated.

The blood of an animal is also poisonous to another of the same species when the ages of the two are very different. At all events, Kobert<sup>57</sup> has shown that the blood of full-grown cows is very injurious to calves when given by intravenous injection, in spite of the most careful defibrination and cleanly methods.

Too much stress can not be laid upon this point, since Ziemssen has again recommended the subcutaneous and intravenous transfusion of undefibrinated blood. The danger in all these cases lies, without doubt, in the resulting fibrin coagulation and subsequent occlusion of important vessels by the clot. It has already been stated that, with the solution of the white as well as the red blood corpuscle, the clot-producing mother substance, cytoglobin, is split off. Since foreign blood corpuscles are dissolved in the organism, therefore, by the act of transfusion, even with carefully defibrinated blood, the preliminary conditions essential to clotting are fulfilled.

For some years it has been a mode of practice in Germany, in hematic people, to inject hypodermically pure fibrin ferment made according to Schmidt. From a physiologic-chemical point of view, this is analogous to transfusion. The danger is increased if, as has also been recommended, dissolved calcium salts, such as calcium chlorid, are injected simultaneously. Edelberg<sup>58</sup> demonstrated the danger by the production of instantaneously fatal thrombosis when the ferment was injected into the circulation of an animal. Of equal importance with transfusion and the injection of fibrin ferment is the rapid solution of numerous blood corpuscles in one's own blood, as Kollmann has shown. By freeing cytoglobin and its decomposition products the disposition to clot is greatly increased. A poison acting in this manner is represented by ether when subcutaneously injected into a small blood vessel, its expansion into a gas or its solution in the blood resulting. In the former case resistance is offered to the blood stream, in the latter a solution of the blood corpuscles must certainly offer some points of danger, for this alone can cause clotting. Silbermann<sup>59</sup> and Heinz<sup>60</sup> have with colored preparations induced clotting with some substances which were thought to be innocent of such action, such as mercuric chlorid, pyrogallol, glycerol,

sodium chlorate, sodium arsenite and phosphorus. Ricin, abrin, phallin, helvellic acid, sapotoxin, icterus, and hydrogen arsenid act in a similar manner.

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### AN OPERATION FOR PHIMOSIS.\*

BY FREDERICK K. SMITH, M. D., CLEVELAND.

Without going into the subject of phimosis in all its bearings, it may be said that this brief paper has to do with cases of phimosis of moderate degree, and to such only is the operation about to be described appropriate. Some writers would prefer circumcision as the operation for all cases of phimosis or of excessive prepuce, of whatever degree, and would, perhaps, find the condition calling for the operation in every male child examined. It is, however, no more likely that the Hebraic practice will be adopted by all the world, than that the world as a whole will embrace the Hebrew form of religion. While circumcision is not questioned as the suitable operation where a tight phimosis exists, or a redundant prepuce seems to be responsible for nervous disturbance, there is nevertheless a considerable dissent from the use of that operation in cases of moderate degree, as appears from occasional journal articles on the subject, and is further evidenced by the very general use of other methods of treatment.

Cases of moderate phimosis are likely to come under observation for the first time when relief is sought for paraphimosis, or an examination made to find a possible cause for some reflex disturbance; or perhaps in later life, when a balanitis has developed in consequence of the impossibility of keeping the sub-preputial space properly cleansed, or a venereal disease has been contracted.

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With paraphimosis there will usually be found a considerable degree of edema, and often serious danger of strangulation, calling for a simple operation for immediate relief, provided the paraphimosis cannot be otherwise easily reduced. If, at the same time, the operation may be made to afford permanent exemption from a return of the difficulty, it becomes so much the more valuable. Where a phimosis appears to be responsible for other pathological conditions, an operation to remedy the phimosis without sacrifice of tissue would often be preferable to circumcision. With a venereal infection, which would not often be found in the child, any cutting operation (unless subcutaneous) would, of course, usually be contraindicated.

The procedures, aside from circumcision, which have been recommended and used for moderate phimosis are dilatation and division of the constricting tissues either by multiple nicks or a simple incision, or subcutaneously by a tenotome. These may serve the purpose in particular cases, but are likely to be followed by contraction in healing, which may reproduce, in part at least, if not to the full extent, the original condition. Division of the prepuce in the dorsal line, with suture of the skin and mucous membrane on each side, is unquestionably effective in curing the phimosis, but the cosmetic effect is likely to be objectionable to the patient in adult life, in spite of the claim that it insures as well finished an organ, esthetically, as that resulting from circumcision.

In such cases of moderate phimosis which did not call for circumcision, I have been in the habit, for a number of years, of performing the operation to be described. The operation can be explained most clearly with the aid of the illustrations shown. The particular case which the drawings were made to illustrate was that of an adult patient who presented himself with the condition shown in Fig. 1, a paraphimosis of several days' standing, produced in coitus, and an edematous swelling of considerable prominence, confined to the right side, the unilateral feature being peculiar and striking. The drawings were not made directly from the case, but from memory, a short time after, but they represent, with a fair degree of accuracy, although in a diagrammatic way,

the condition of the parts at the time of operation. Attempts were made to reduce the paraphimosis, but without success, and it was soon determined to operate.

In this case, as usually in adults, cocain was used for local anesthesia; but with young children, for obvious reasons, a general anesthetic would be preferable. The junction of skin and mucous membrane, and the underlying bands of fibrous tissue were first cut through in the mid-dorsal line. This immediately relieved the constriction, and the edema at once almost entirely disappeared. With the continuation of the cut through the mucous membrane to its attachment at the cervix, the condition became that shown in Fig. 2, which also shows the lines of the two incisions next made at an angle back

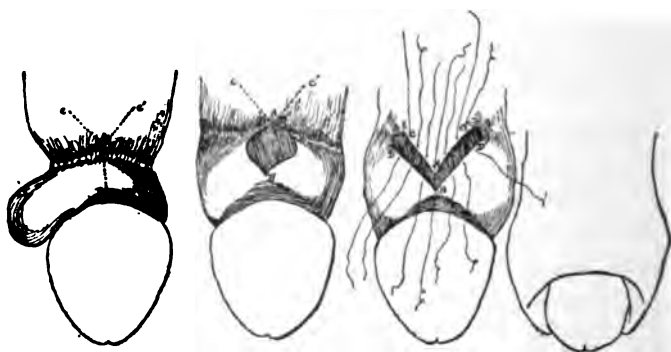


FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

through the skin. The point A of the skin flap was then carried forward to the apex of the angle formed by the incision through the mucous membrane, the stitches inserted, and the operation completed. The position of the parts at this stage, with sutures in place at each side, ready for tying, is shown in Fig. 3.

It will be found that the edges of skin left at each side of the V-shaped incision, D C and D' C', contract and pucker more or less with the release of tension, and the lateral angles at D and D' are retracted by the lateral tension, so that little unevenness of surface is found at the posterior extremities of the lines of union, and what little may exist disappears during the progress of healing. The only dressing needed is a small piece of lint or a thin layer of absorbent cotton, moistened with an

antiseptic solution, placed between the glans and the prepuce, as the latter is brought forward to cover the glans in its normal position. With a child, precautions should be taken to prevent disturbance of the parts, but this is much easier than in circumcision. An adult is very little discommoded, and may pursue almost any vocation without difficulty immediately after operation. In the particular case illustrated the patient never returned for inspection, nor even for removal of the stitches, and the precise result is not known. The results in other cases have, however, been perfectly satisfactory.

A glance at the anatomical conditions shows how the operation is effective. The juncture of the skin and mucous membrane at the preputial orifice is underlain by a band of inelastic fibrous tissue, which is the main element in hindering retraction in phimosis and preventing reduction in paraphimosis. The mucous membrane is also highly inelastic and fits closely about the glans, while the skin is elastic and loose-fitting. The wedge of skin interposed between the ends of the severed fibrous band and the parted areas of mucous membrane enlarges by so much the preputial orifice and the inner layer of the prepuce, and effectually precludes a return to their original dimensions. The precaution should be taken to make the angle  $C A C'$  sufficiently large, the size of course depending on the degree of constriction originally existing.

After healing, there is little in the appearance of the parts to indicate that they have been subject to operation. With the prepuce covering the glans in the natural position, the preputial opening appears larger than before, with the posterior border slightly straightened and an approach to an angle at the junction of the posterior and lateral borders, something as shown in Fig. 4, this appearance being due to the moderate shortening of the skin of the dorsum. On full retraction of the prepuce, close inspection shows the displaced angle of skin, distinguished only by a slight difference in color and surface texture.

As stated in opening this paper, this operation is applicable to cases of moderate phimosis only; but it is just those cases which are liable to paraphimosis. In a case



where the opening is large enough to allow retraction under the application of extraordinary force, the operation would seem to offer all the relief needed. In other words, in every case of paraphimosis this operation may be chosen in preference to the simple incision, as affording equal relief and a more satisfactory final result, while taking but a few minutes more in performance; and in preference to circumcision, as meeting equally well the indication for permanent enlargement of the opening, as being less trying for the patient during healing and leaving a more satisfactory permanent condition, and as being more easily performed. In the same class of cases, too, accumulation of smegma and consequent irritation may be expected, which would be relieved by a sufficient enlargement of the orifice to allow free retraction.

It may be seen that the operation is simply the application of a method in common use in plastic surgery, consisting in the appropriation of a portion of readily distensible tissue which can be well spared, to supply a neighboring deficiency. I have, however, never seen any previous description of its application to the use I have made of it in phimosis.

#### DISCUSSION.

THE PRESIDENT: As far as I recall I have never seen any operation exactly like this. I do not remember of having any such operation come under my observation. It certainly seems to fulfill the requirements in a certain class of cases and has given good results. I would like to hear what any of you may have to say.

DR. D. S. HANSON, Cleveland: I have in a number of instances done an operation similar to that but, I think, much simpler, by making a longitudinal incision through the stricture. The edges will separate widely, and then bringing the angles of the wound together makes a transverse wound of the longitudinal. This is very quickly and easily done.

DR. F. S. CLARK, Cleveland: In the child, almost the only condition requiring such an operation, it seems to me, would be where the prepuce is very long. In ordinary cases of phimosis I believe that it is not necessary to circumcise. Of course, in adults or in some cases

where an operation is necessary this operation will perhaps accomplish the results better than any other operation. The method I have followed, one the doctor referred to, is dilatation of the prepuce. I have done it over and over again, simply using a dilator. The one I have used is a uterine dilator with a very small point so it will go into a small prepuce. In most of these cases you will find adherent prepuce, and all that is necessary is to break up the adhesions. You can do it without an anesthetic. There is no bleeding. All that is necessary in the matter of treatment is bathing the glans and putting on a little vaseline for two or three days afterward.

I think in the majority of cases where phimosis exists in children it is not necessary to perform circumcision, and that dilatation is all that is necessary. The parents will object to the operation. An anesthetic is needed and they object more to that perhaps than they do to the actual operation.

DR. L. K. BAKER, Cleveland: I have found in examining adults that about 20 to 25 per cent. had sufficient phimosis to require an operation. I remember a remark my assistant made, after an operation of simply dividing the stricture and suturing, which illustrates the cosmetic effect of the procedure. Of course when it was completed there was a little swallow tail sticking up at each side. He remarked, "Now you can tie a little tassel on each of those and you will be fixed." It struck me I ought to do something to get rid of those tails. So without knowing anything about this operation I varied it somewhat, rounding off the corners a little more and making a similar operation. The main point is this, and it is a very practical point—nearly all those you operate upon will be better satisfied. I think this operation must be original with the doctor. I did not know whether I was on or off the track, but I knew I got good results.

DR. SMITH: In many cases of very young children, which, I take it, Dr. Clark had especially in mind, all that might be necessary would be dilatation and separation of the prepuce from the glans, even where actual phimosis exists. But in some cases I think the phimosis is more apparent than real, and that there is oftentimes an apparent contraction associated with adhesion, which in

time, with the growth of the child, disappears and becomes normal. At the same time, that there is a considerable percentage of boys that grow up with phimosis is made evident by what Dr. Baker says. I do not know that I have ever before seen any report as to the proportionate number where phimosis exists, but my observation would indicate that his figures approximate the general ratio. So we must consider that the phimosis which appears in infancy does not always disappear, as some of the books and authorities would have us believe.

As Dr. Clark said, it is difficult to get parents to consent to any operation as long as there is no very evident or notable trouble in that respect; but the cases that I had in mind were those moderate cases in which the prepuce cannot be readily retracted and paraphimosis occurs every once in a while. Then the parents have to consent to some operation, unless the trouble is got rid of otherwise.

As to Dr. Hanson's operation, that is what has been done a great many times and is what I alluded to in the paper, slitting the prepuce to its base and then stitching up the skin and membrane on each side. It is simply stitching the mucous membrane on the right side to the skin on the right side and the same on the left, and that leaves the condition which Dr. Baker refers to. The doctor calls it "swallow tails." I certainly think this condition is objectionable. I have seen the statement by some writers that in time these will disappear. I have in mind a boy that I saw when 10 or 12 years old, and that operation had been performed when he was an infant. The tags were there in evidence, a condition to which I think most men would object.

DR. R. E. SKEEL, Cleveland: There has been considerable said about adhesions. Has an infant's penis ever been seen that did not have adhesions? I never observed an infant in which they were not present.

DR. CLARK: I did not mean to give the impression that I used dilatation simply in infants, because I have never used it in an infant. It has usually been children from two up to six years old. I do not know as I have ever done it for a child over six years or under eighteen months.

## THE NECESSITY FOR AN ORGANIZED MEDICAL PROFESSION.\*

BY WM. M. CALHOUN, M. D., EAST LIVERPOOL, O.

Members of the Eastern Ohio Medical Society, allow me to thank you for the high honor which I now enjoy, by your favor. This is our first banquet, our first jubilee, the first time in the history of our society that we have invited our wives—or those of us who are not so fortunate as to have wives, their sweethearts—to meet with us and join us in our festivity.

Ladies, we extend to you a hearty welcome. We will digress somewhat from our usual program to-day, hoping thus to make our meeting together pleasant for you whom we have invited to be our guests. For us not to do this I fear would result in failure to interest you, so we have set apart this day to be spent in feasting and entertainment, which we desire to make both profitable and interesting to all. It is useless for us to enter into a review of the history of our society, for it is only in its infancy, but I will say in its behalf that if the interest that is now manifested continues in the future as in the past, its powers for the advancement of the medical profession will be felt wherever its members are found. Let it be remembered that in union there is strength, that in the exchange of views on topics pertaining to our profession we shall be strengthened for our work. Never in the history of the world have we made greater progress in the study and advancement of the theory and practice of medicine than we have in the last century. All fields, professional, industrial and mechanical, have been cultivated with a zeal before unknown. Criticisms of old theories and discoveries of new facts are giving new science in all departments, making it necessary for a more thorough training in all callings. In this our profession is not behind, but I am sorry to say that the requirements for entering the profession and engaging in the practice of medicine have not been what they should have been, but we are coming bravely to the front in this particular. No profession has made greater advancement than the medical profession in the

\*An address delivered before the Eastern Ohio Medical Society, at Steubenville, April 20th, 1897.

last century. An intensely critical spirit is characteristic of our time. All departments, science, philosophy, law, medicine and theology, feel its influence. Theories old and new are tested by the fierce light of a higher criticism. No hypothesis is accepted as true until it has vindicated its right to be by the severest trials. The authority of Galen and Dioscorides reigned without question for fifteen centuries, but a man to-day is happy if he can be quoted as authority for one year. I am glad this is the case, and especially glad that this is so in our own profession. The time was, in the history of the practice of medicine in this fair land of ours, and that not many years back, when ignorance and superstition seemed to predominate. If a man could use a lance, extract a tooth, and give a dose of calomel, he was ready to hang out his shingle as a full-fledged physician; but all this has changed in the last half-century, and great advancement has been made in this particular, but there is still room for improvement. If we physicians will unite and determine to make our profession one of the most scientific, the most practical and the most useful in the world, we can do so. I am egotistic enough to think that it is that now. But the idea that I wish to impress is this, that we must keep out of the profession, as far as we can, unscrupulous, unclean, intemperate and ignorant persons. I have often heard this remark, made half in jest, perhaps: "If I cannot make anything else of my son, I will let him study medicine." The day has come when we can keep such characters out of the profession; there is no room for them, and the sooner we impress this idea, the greater will be our influence. We can teach the people that ours is one of the most noble professions on earth, and the sooner we do this, the greater will be our influence for good.

Quacks thrive upon the ignorance and gullibility of the people. The only remedy for quacks lies in the education of the people in those medical facts and theories which will lead them to see that there is a scientific foundation for rational medical practice. No profession has been wronged more by quackery than has been the medical profession. Quacks almost innumerable have infested the land. Why is this the case? Simply because the peo-

ple, in part, are ignorant of the fact that our profession is based on science and not on superstition, witchcraft and the like. The remedy lies largely with ourselves—we must organize against such unprincipled characters. In the first place the laws are too lenient with this class of impostors; there should be a law prohibiting quackery, with such a penalty attached that the offenders would feel its enforcement so keenly that they would not dare take the risk. Under our present law we have some protection, but it is inadequate. Unprincipled men are made legal practitioners by being violators of the law for ten years. I have in mind a man who has in some way come into the possession of a certificate which makes him a legal practitioner in the state, although he has never been recognized or known as a physician, claiming to have been practising in the line of a specialist for the period of time required by law in this state; thus making him an equal with the men who have spent both time and money to equip themselves for usefulness in their chosen profession. This should not be the case. No man should be allowed to practise medicine in any of its specialties until he has equipped himself thoroughly for the work and obtained a diploma from some reputable medical college. Nor should any student of medicine be allowed to enter a medical college to pursue the study of medicine until he gives satisfactory evidence of his qualifications, of his morality, of his honesty, of his sobriety and his general deportment in the community in which he lives. Now the question naturally arises, “Whose business is it to look after this matter?” It is, I will emphatically say, the business of the medical profession, and in order to be able to do this we must be thoroughly organized. Each different school of medicine should have its medical societies, and no person should be permitted to become a member of such a society unless he is a graduate of some reputable medical college, and no student of medicine should be eligible to enter a medical college unless he comes recommended by a reputable society. In this way we could be better able to keep out of the profession disreputable persons. But this alone will not suffice; we must have statute laws as well for our protection, and in order to bring about the result required our influence must

be felt in the body politic. While I do not believe in physicians being ranting politicians, I do believe that there are times when our voices should be heard in the halls of legislation, especially on subjects pertaining to the protection and advancement of our profession and on questions that are of vital importance to the public at large.

We have, as a profession, done much for suffering humanity. Diseases that were looked upon as almost incurable have, by scientific investigation, been almost mastered, and others whose toxic influence has not been controlled have been limited in their extension by isolation and strict quarantine. We have also demonstrated the peril to health of unwholesome water and noxious surroundings. There remains much to be done in the way of protecting the people against these dangers. Notwithstanding all these facts, the ignorant pretenders roam over the land, offering to perform miracles, or are located in our towns or cities, preying upon the weakness of the sick and afflicted, while men and women are allowed to die without medical attention, deluded with the hope that faith will save them in their last extremity. Within the limits of our professional power and influence we seek to restrain any approach to criminal practice, yet the newspapers disgustingly, though covertly, advertise the way to such crimes, and then startle their readers with sensational tales of death and misery to which they are directly accessory. Is it not evident that legal protection is necessary for ourselves and for the people as well? I do not deem it necessary that we should stand as sentinels warning the people of approaching danger, but there is a relation existing between the family physician and his patrons that naturally draws them very close to each other. No man is held in higher esteem by the family who employs him than their family physician. We are allowed privileges that no other is allowed to take. We are called into families and secrets are made known to us that they would never think of divulging to others. Thus we are thrown into intimate relation with each other and placed in positions such that our power for doing good or evil is great, proving beyond a doubt that none but conscientious Christian gentlemen should

be engaged in the practice of medicine. Then, on the other hand, no men make greater sacrifices than we do. Our time is not our own. We are public servants. The physician is seen out at all hours, day or night, hot or cold, wet or dry, tired and weary, attending to his professional duties, and very often he gets but little remuneration for his self-sacrificing service. Too frequently the last bill to be settled is the one for the physician's service, and sometimes we should be glad if it were settled even then. This should not be the case. Our patrons should be taught that physicians' bills, like others, should be paid. I am glad to say that not all of our patrons are like those represented above, but I must say that the physician, above all others, is the one the dead beat seeks for his victim, and I think the fault lies largely with ourselves. We are very often too eager for business, we do not stop to inquire who our new patrons are, do not even consult our dead-beat list, if we have one. Sometimes I think every local medical society should have such a list, and also report dead beats to other societies when they leave our bounds. Very often medical etiquette is not observed. I hope we have no members in this society guilty of such a charge, but we have them in the profession who, by some intrigue, in the absence of the attending physician, or through the influence of a friend, succeed in persuading the patient to change physicians. Very often this occurs when the attending physician has the patient on a fair way to recovery, thus taking the glory as well as the family from the one to whom they rightfully belong. Such conduct is a thing of which no honest man would be guilty; it is wholesale robbery. There should be professional courtesy observed, a brotherly love existing. Every man should win on his own merit; and if a brother should lead us in the race by honest competition, bid him God-speed and give him credit for his ability, his energy and his perseverance. Such men are an honor to the profession and a blessing to the community in which they reside. We are all aware that there is plenty of room at the top of the ladder, it is only the first few rungs that are crowded, and he who has an ambition to reach the top must do so by close application, by doing the little things that come in his way. No man ever reaches



the top by a single bound, nor by neglecting opportunities, let them be never so small. The prize is won by the vigilant, the active and the brave, and not by the slothful, the intemperate, or by him who tries to win by the downfall of a brother. Gentlemen, it pays to be honest. Very often the pit we dig for a brother is filled by ourselves. In conclusion, I must say that I feel my inability to occupy the position of honor this society has conferred upon me. I also feel that my address is fragmentary, but my aim has been, in my weak way, to show the great necessity of an organized medical profession, in order that we may protect our profession and our patrons from the imposition of quacks and pretenders—that we may elevate the standard of the profession of medicine, and show to the world that we stand second to none, keeping out of the profession the ignorant, the intemperate, the unclean and the dishonest.

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## DERMATITIS FOLLOWING THE APPLICATION OF THE X RAYS.

BY WILLIAM THOMAS CORLETT, M. D., L. R. C. P. (LOND.),

Professor of Skin and Genito-Urinary Diseases in the Western Reserve University; Physician for Diseases of the Skin to Lakeside and Charity Hospitals, Cleveland.

Dr. G. Apostoli (Academy of Sciences of Paris, June 14, 1897) presented to the Academy of Sciences the report of a severe case of dermatitis following the employment of the Roentgen rays, which proved most rebellious, and for which he gives a treatment hitherto unknown.

In brief, the history of the case is given as follows: There formed a large gangrenous area on the wall of the abdomen, measuring in February, 1897, 17.7 by 13.6 cm., which followed two applications of Roentgen rays made at Dublin on May 28, 1896. In the first application, which lasted 40 minutes, Crooke's tube was placed 15 cm. from the skin; the second application was made for 90 minutes, and the tube was placed within 9 cm. of the skin. Immediately following each application nausea was complained of, but no vomiting. Two days later

there appeared a progressive erythema, which resulted in gangrene of the part — vesicles and bullæ with abundant serous discharge resulting in the gradual formation of a slough, which had greatly subsided by the following July.

A relapse occurred in August, with burning, intense pain and suppuration of the surface affected. Local applications of various kinds were made without giving relief. The parts were cauterized and finally curetted under anesthesia, but without success. At the end of October, 1896, five months after the outset of the changes in the skin, a stream of oxygen was applied to the wound, five hours daily, which was the only treatment that had given promise of relief. Under this the process was arrested, and the wound diminished perceptibly in size.

February 9, 1897, the following electric treatment was adopted: Static baths with *effluvation* on the parts affected were given daily, each *séance* lasting from 20 to 30 minutes.

At the end of March the association of the static bath with currents of high frequency under the form of the *condensing bed* was used. After April, 1897, the hydro-electric bath with the undulatory current was employed twice a week, with progressive amelioration, especially after the association of the static *effluvation* with the polar applications of the undulatory current. The detachment of the dry, adherent, gangrenous slough was slow, but daily progressed, together with a diminution of the surface to within one-half of its original size. The patient (in June, 1897), presented a fair prospect of recovery. The same treatment was to be continued.

From this the following conclusions are formulated by Dr. Apostoli:

1. The application of Roentgen rays may provoke, under certain circumstances, a dermatitis more or less grave, sometimes characterized by a simple erythema, at other times by gangrene more or less deep, which may penetrate through the entire skin, involving the subcutaneous tissue.

2. This dermatitis, variable in its course (sometimes affecting the skin, nails, or hair), variable also, to a certain measure, according to the constitutional state of the subject, may be likened to a burn produced by an ordi-

nary electric current, presenting, like it, the general characters of asepsia, apyrexia, and a very slow process of repair, with marked uniformity of symptoms during its whole course.

3. This dermatitis is always the result of a faulty technique in operating, which is most frequently caused by the too close application of Crooke's tube to the skin; or by a too long application of the current. Again, it may be due to the too frequent application of the rays.

4. Dr. Apostoli proposes by way of treatment the electric current, applied in the following forms, the strength being increased or diminished according to clinical indications:

a. The simple static *effluvia*, which by its direct local action as well as by its general influence hastens the work of reparation and cicatrisation of the ulcers.

b. The galvanic current by polar application or, better, an undulatory current to accelerate the separation of the slough, thus acting by its topical as well as by its trophic influence.

c. The current of high frequency (by the *condensing bed*), destined, as has been demonstrated by Professor d'Arsonval, to increase the general nutrition and give to the body a vital force.

Dr. H. Radcliffe Crocker, in reporting a case, with notes of cases reported by others (*Brit. Med. Jour.*, January 2, 1897), gives the following suggestions: "The consideration of these cases shows that, while the X-rays may excite a dermatitis very like severe sunburn and even ulceration of the skin, which is extremely difficult to heal, and also shedding of hair and nails with or without antecedent inflammation, these ill-effects are only produced when the exposure is very prolonged and the Crooke's tube is placed very close to the skin, or when the exposure is frequently repeated, as in the case of public demonstrators of the phenomena. Dr. Drury's case suggests that possibly the strength of the battery used to run the coil may have some influence. In my case an accumulator was used, so that possibly the current was extremely strong. No ill-effects from the exposures usually required for an ordinary radiograph need be feared. The fact that in the Canadian case picric acid seemed to be protect-

ive to some extent, suggests that perhaps it was due to the yellow color of the acid, and that Dr. Bowles's suggestion of protecting the face against the sunburn of snow mountains by coating it with black or, better, red pigments, might possibly be prophylactic against the X-rays also, and workers with these rays might wear red cloth gloves, or coat their hands and face with red paint which could be easily washed off."

The number of cases reported of dermatitis following the application of the Roentgen rays is now very large, so that it no longer presents the peculiar interest manifested when Daniel (*New York Medical Record*, April 25, 1896) announced the destruction of hair without accompanying dermatitis. Unfortunately Daniel's observation seems to be the only instance reported in which the hair-root was selected with complete immunity to adjacent structures. I have seen but one well marked and extensive dermatitis due to the X-rays, which was under the care of Dr. G. C. Ashmun. In this case an area about six inches in diameter, situated on the thigh, presented a bright red, weeping surface from which the epidermis was completely removed. The dermatitis followed one application of the Roentgen rays, forty-five minutes, the tube being placed about eight inches (20 cm.) from the skin. This also has shown the character common to this form of inflammation, in the slowness with which resolution takes place. Dr. Ashmun informs me that the wound failed to heal in six months, and an operation has just been made, removing the skin affected.

In regard to the complicated electric treatment suggested by Apostoli, I fail to see from his report sufficient grounds for the conclusions drawn. Certainly drawing conclusions from a single case, and especially before resolution was complete, is going more rapidly than we are accustomed to observe in men seeking only for truth and the advancement of science.

IS A CHANGE NEEDED IN THE LAWS RELATING TO THE CORONER'S OFFICE?

DR. E. ROSENBERG, CLEVELAND.

The coroner's office is no doubt one of the most important judicial institutions of our commonwealth. Nearly all branches of human knowledge contribute to the basis upon which this office develops its individuality. In my first discussion (CLEVELAND MEDICAL GAZETTE, August, 1896) upon this subject, I arrived at the conclusion that the laws governing this office are antiquated, as we have outgrown forms that have hitherto served us. Accordingly, I emphasized the necessity of revising these laws and of remodeling the whole structure of this institution. In support of this conclusion, I wish to suggest a few more points which have failed to attract due attention.

If it is the purpose of this law to detect crime, then it is important that every homicidal case be reported at once to the proper authority. In fact, the efficiency of the coroner's services begins with this point. If the law does not specifically express the *modus operandi* of setting the machinery of this office in motion, many crimes will be buried under the cover of a natural death. Must we not regretfully admit that this seems very often the case at present? Concealment, secrecy of criminal deeds, are possible factors with which the laws of every civilized community must reckon, the more so as the phenomenal growth of our cities, absorbing nearly forty per cent. of the entire population, affords a more favorable soil for the growth of criminal classes, and also better opportunities for hiding their criminal deeds. It is said that the city of New York has 20,000 vagrant children, without parents, lurking about alleys and sleeping in garrets and ash-barrels. This state of affairs sufficiently explains the reason why the records of homicides, suspicious deaths especially, not cleared up as to their perpetrators, show an increase in numbers from year to year. From day to day human remains are discovered in places to which they could have been consigned but by criminal agents and motives.

Our laws take no cognizance of such possibilities as

these, and make no specific provisions as to the way in which sudden deaths should be reported to the coroner. In general, the channels through which cases reach the proper authorities are either the penetrating censorship of public vigilance or the physicians' reports. This censorship is a very unreliable medium, often a mere phrase, and as to the physician's death-certificate, we all know the deplorable conditions under which these matters stand. The undertaker's certificate as to the cause of death is as legal as that of the physician.\*

The following cases may serve to illustrate the laxity of our laws bearing on the matter. About three years ago I had sufficient reason to refuse death-certificates in two cases. In both instances the deceased were infants (two months and nine months of age) that I did not attend professionally. In the first case, being familiar with the character of the parents, the child being illegitimate, I felt justified in reporting it to the coroner. But the father, not despairing on account of my refusal, procured the required document from an undertaker, and the interment took place before the arrival of the official, who, after a short conversation with the mother, dismissed the case. Striving to do the right thing in this case called down malediction, and perhaps tended to hurt my reputation. In my other refusal to write a death-certificate, another medical man was consulted, who without seeing the corpse furnished the required document. Now it needs but moderate intelligence to see the paralyzing influence such a state of affairs will exert on attempts to bring to light crime and thus serve the cause of justice. On the contrary, I dare say it encourages criminality, as it protects it with a legal varnish in the form of deficient laws. *Horribile dictu!* Only Heaven knows how many crimes are under the mute earth crying for vengeance.

Criminal instincts, it is true, have always existed, and the proverb "*Homo hominis lupus est*" was valid at the time of codifying these laws; but at this hour of civiliza-

\*Only recently, under the present administration our city sanitary authority succeeded in bringing about legislation prohibiting this class of business men from giving certificates of death; but rumor tells us that these men are now trying to have these enactments repealed. Considering the omnipotent forces of political influence, there is a possibility of their point being carried.

tion, and in spite of it, the species homo is more of a wolf than the lupus itself. We must conform our laws to the present arrangements of society, or we shall pay dearly for the anachronisms existing in our institutions. In general, there are no codified instructions or regulations governing the procedure of conducting post-mortem examinations. Thus it is very striking that the physician having attended the deceased may also conduct the post-mortem on the same. Such proceedings involving possibilities of partiality, etc., are open to criticism, and laws which do not cover this point are inadequate. Equally striking is the insignificance attributed to the principle of a post-mortem. The law does not even require that the medical examiner should take an oath before proceeding to work, a work the most responsible one of the whole machinery. It is true that the conscientious physician requires no oath to secure his faithful performance of duty; and that it exerts no binding effect upon the dishonest, unprincipled character. A formality of this kind may, therefore, seem irrelevant.

With due respect to the profession to which I belong, allow me to say that the number of dubious characters is small. Nevertheless we must remember that human nature is defective, and in trying to formulate laws for the safety of society we must cover all points of view.

It is true, the coroner himself takes the oath of office at his inauguration, but his functions are mostly of an administrative character,\* and his opinion is based upon that of the medical examiner, or chemist, with one word of expert testimony.

The necessity for a code of instructions for conducting post-mortems may be best shown by relating an instance. I had the opportunity to observe the case of a boy suddenly dying under suspicious circumstances. The autopsy was performed at one of our so-called "morgues." The section took its regular course, but to my disappointment there was no one to put down the findings to protocol. The coroner quietly witnessed the work, and for any notes of interest depended solely on the powers of

\*This conception of the law is best shown by allowing the sheriff or a justice of the peace to act in case the coroner is for some reason hindered from performing his duty.

memory of himself and the operating surgeon. We know that the evidence furnished by post-mortems is not always absolutely conclusive, often merely suggestive. Hence minute specifications may disclose points, perhaps not of importance to the medical examiner, but yet of great interest and value to some other observer. Besides, who can vouch for an eventual omission liable to occur under the practice now in vogue, operating possibly upon the final issue of a given case. The representative agent of the law is not to be blamed for such arbitrary practice, if I may so call it, but that law itself which permits such policy. Taking a case of poisoning, the importance of placing a part or the whole of the viscera in a clean receptacle is obvious. Such a vessel was not at hand in the case referred to above, and a messenger succeeded, finally, in procuring something which, though not the ideal, had to be employed in the emergency. Hermetic sealing, to prevent an unauthorized opening, or perhaps even escape of the contents during transportation, was not thought of. Let me repeat, this impeachment of superficial proceedings is not a criticism of the official, but of the law which is defective and loose.

Here, then, is a good illustration of the possible faults following a want of regulations. Many may seem trivial and are passed over, yet on looking closer at their entity, we find they constitute integral parts without which a good system is inconceivable. Suppose a lawyer for the defense learns of the manner in which jars are obtained and handled; on that ground alone he may bear down all evidence, be it never so convincing, and free from the gallows one who would have graced it. Further comment on this point is superfluous, and all who have studied it know there is room for improvement, and that the time is now at hand for reform.

There are yet other aspects of this subject that need consideration. I leave this elaboration to abler hands, and will offer one other argument bearing on the expediency of reviewing these laws. I refer to the economic side and the tendency of the municipal administration in trying to minimize the expenses of the coroner's office as much as possible. In preparing an article on suicides, I was looking up the records of that office, and in scanning



the long rows of causes of death. I found them to teem with phrases such as heart failure, debility of age, over-exertion, etc. At first I ascribed these nice-sounding, though scientifically less sonorous designations to incompetency on the part of the coroner or his expert advisers. But pondering the matter a little more thoroughly, I found another agency productive of such records. "Keep down expenses," is the cry, and in loyalty due his party the coroner must heed the pressure from above, and accordingly the number of post-mortems must be reduced. Perhaps this is done at the expense of justice, and for the sake of economy we must put up with the characterized work. Even with the worst of expert talent, I think that we can hardly account for such records, unless we take into consideration the bad effects of an excessive economy and the laws which permit such a state of affairs to exist.

Thus far I have tried, with a few touches, to bring before our recollection the untenable conditions resulting from our laws not apposite to the times, and I think the truth of my assertions, however humble the source from which they emanate, should be recognized, and accordingly a movement for some reform inaugurated. It seems to me that the public in general has a misconception of the character or mechanism of this institution, else it would have demanded reconstruction long ago. Such misconception from that side is partly pardonable, but how shall one account for the indifference shown by the more intelligent of our reform clubs and legislative bodies, supposed to represent the intelligence of their constituents, or is the recently enacted law condemning the high hat more important than the safety of life?



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## Editorial.

### MEDICAL PUBLISHING BY MEDICAL MEN.

The *American Journal of Gynecology and Obstetrics* follows an announcement of a book recently issued by the Medical Gazette Publishing Company with comments on the fact of its being published by medical men. Says the editor of that journal:

"This is a step in the right direction, and we gladly welcome it. We look forward to the day when medical books as well as periodicals will be published exclusively by firms in which physicians will have at least a controlling influence, instead of the system so largely in vogue at present in lay publishing houses, where the question of publication is submitted to some medical employee, often

of little knowledge and even less experience, and the fate of a medical work decided by incompetence if not by prejudice and spite.

"As an example of this system, we call to mind the case of a very eminent gynecologist whose work was refused by one of the leading publishers of this city on the ground that 'there was no room for any new book on gynecology.'

"A Philadelphia firm immediately published the book, which proved to be the most original that had appeared, and its publication in this country was quickly followed by English, German and French editions. Later, it transpired that the above ingenuous advice had been given by a younger gynecologist in the employ of the New York firm, purely from motives of self-interest, and with the expectation that his identity would remain hidden. It is to obviate the possibility of such tricks, to assure competency of judgment and to enable medical authors to place the responsibility for the acceptance or refusal of their works where it belongs, that we need medical publishing houses exclusively under medical control.

"It is their duty as well as to the interest of the profession to publish their books under medical auspices, and a general and practical encouragement of this design would soon provide even greater facilities, in a material sense, than any at present controlled by lay publishing firms.

"We wish the Medical Gazette Publishing Company success in its present venture and a large field of future usefulness."

The originators of the Medical Gazette Publishing Company are well aware that their organization is a step in a new direction, as well as in the right direction. Dr. J. D. Emmett, whose editorial is quoted, is speaking wisdom, evidently from observation and experience. We believe there are still more points involved in the question of medical publishing by medical men than those he has stated. It is well known that only medical men can understand or feel or appreciate the *esprit de corps* which animates the profession. The laity cannot comprehend our ethics, nor estimate the spirit which leads the physician to sacrifice time and labor and money to

further scientific and professional interests. That spirit has found expression not only in research and in practice but in literary lines as well. The written records of the research and the practice have been given for publication freely and for no compensation, or for very moderate and wholly inadequate compensation, considering the productive labor involved at the hands of lay publishers. The publishers, protecting their interests by copyright, then sell their publications back to the profession at prices which have rendered many publishing firms immensely wealthy. Yet within the year we were treated to a notable example of a publishing house refusing the use of material which cost them very little, if anything, and from which they had already derived a profit—refusing the use of this material for further dissemination to the profession which furnished it, and had already paid them one profit upon it. Dr. Geo. M. Gould and the author to whom Dr. Emmett alludes are not the only medical writers who have had to contend against the selfishness of publishers. An organized body of medical men are not only better capable of judging what is worthy of publication and presentation to the profession than any lay publishing firm or any paid medical adviser of that firm, but they are the only persons who can deal with authors and readers in the full influence of the professional spirit. If profit accrues to publishers who are medical men, that same professional zeal will lead them to turn such profit to the advantage of authors and readers—to the advantage of the whole profession—with the same liberality which induces us to make known discoveries and to refrain from patenting inventions. The establishment of medical publishing houses controlled by medical men will, if these facts are appreciated by the profession, lead to a higher—to a proper appreciation, both in a business and in a critical sense, of the literary work of physicians. It will tend toward the encouragement of a better quality of medical literature both in books and periodicals, and to starve out inferior, unethical and ephemeral publications. These matters should be considered by the profession with the seriousness which their importance demands, for the profession is the arbiter of the fate of its literature and of all medical literary enterprises; and we

hold that there is no greater factor in the problem of the advancement of our science and art than that of their dissemination by books and periodicals.

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### BY THE WAY.

Nothing could be more gratifying than the assurances received from physicians East, West, North and South, editors of other medical journals, and readers of the GAZETTE, that we are publishing an "excellent journal," a "clean and wholesome journal," a "bright and interesting," "a rattling good medical journal," or "the best medical journal in Ohio." One, a medical editor, generously writes: "I like the strength and the independent spirit of your editorials." Another editor away down East says: "We never heard of Cleveland till the GAZETTE came to us." Many readers have averred that they had no knowledge of Cleveland as a medical center except that obtained through the CLEVELAND MEDICAL GAZETTE. These expressions are very gratifying, and we take this opportunity, at the close of our year—our twelfth year, by the way—to assure our friends everywhere that their encouraging words are appreciated; and they must consider themselves thanked, not merely in words but in our constant endeavors more worthily to represent our city and our state, so far as printed pages can before the profession at large.

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### JOSEPH F. HOBSON, M. D.

Dr. Hobson is a Buckeye born, having chipped the shell at Flushing on August 3, 1861. He received his medical education in Cleveland, graduating from the Medical Department W. R. U. in 1886, opened an office in Dr. Parker's building on Erie street, and began general practice. He soon received an appointment as surgeon of the C. & P. Railway, and continuing in the railway work, is at present surgeon to the Baltimore & Ohio R. R., and chief surgeon of the Pennsylvania Company



JOSEPH F. HOBSON, M. D.



at this point. Dr. Hobson is also consulting surgeon to St. John's Hospital, and holds the chair of Casualty and Minor Surgery in the Cleveland College of Physicians and Surgeons.

In November, 1892, he was married to Miss Anna Schlather, of this city. They have one child. The family occupies a handsome brownstone residence on Prospect street, where the doctor also has his office. Dr. Hobson is a member of the Cleveland Medical Society, the Association of Surgeons of the Pennsylvania Company, the Ohio State Medical Society and the American Medical Association, before which organizations he has occasionally presented papers. As a member of the committee of arrangements for the Cleveland meeting of the O. S. M. S. he took an active and efficient part. Dr. Hobson and family sail for Europe on November 6, and expect to remain abroad a year.

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## Periscope.

### INVESTIGATIONS UPON THE AGGLUTINATION OF BACILLUS TYPHOSUS BY CHEMICAL SUBSTANCES.

An exceedingly interesting series of experiments, which have an indirect bearing upon the Widal method of sero-diagnosis for typhoid fever, and which add to the confusion concerning this test as a diagnostic procedure, are reported by Malvoz (*Annales de l'Institut Pasteur*, Tome XI., No. 7, 1897). Acting upon the suggestions of Blachstein and Engels, who found that the spirilla of Asiatic cholera were agglutinated by chrysoidin, Malvoz tested the agglutinative effects of various chemicals on the typhoid bacillus. He finds that the characteristic loss of motility and clumping which attends the use of typhoid blood serum in the Widal reaction can be induced by formaldehyd, corrosive sublimate, peroxid of hydrogen, alcohol, and by a number of anilins like chrysoidin, vesuvin and safranin. The test is made by thoroughly mixing a loopful of active typhoid culture with 1 ccm. of distilled water, and adding to this emulsion a quantity of the solution to be tested. The formaldehyd (40 per cent. solution), peroxid of hydrogen, and alcohol are mixed in equal proportions with the emulsion. Sublimate is used in a solution of 0.7 parts to 1,000. A perfect reaction



ensues with these reagents. The anilins are used in a 1 to 1,000 solution, and give a rapid and perfect agglutination.

What the mechanism of these peculiar phenomena may be is not made clear by Malvoz, though his experiments will doubtless go far towards aiding us in a solution of the mystery which at present enshrouds the agglutination reaction.

#### THE INFLUENCE OF ENVIRONMENT UPON THE BIOLOGICAL PROCESSES OF THE VARIOUS MEMBERS OF THE COLON GROUP OF BACILLI.

Notwithstanding numerous investigations upon various aspects of the relationship of the colon and typhoid group of bacilli, there are still many questions to be definitely settled before the exact position of these two important groups of bacteria are determined. This subject has been studied anew by Adelaide Peckham (*Journal of Experimental Medicine*, Vol. II., No. V., 1897), in an exhaustive and very painstaking investigation upon a large number of colon and typhoid bacilli from various sources. As a result of her studies the author concludes with investigators who have preceded her that there are, between what may be taken as the types of the colon group and typhoid group, a whole series of related intermediate forms, which tend to establish a biological relationship between the two types. As to whether the relationship is sufficiently close to make the typhoid bacillus only a variety of the colon bacillus species is a point upon which the author does not commit herself, though a number of prominent bacteriologists have already taken this view.

The function of indol production from the splitting up of proteids has been regarded as a special property of the colon bacillus type. Dr. Peckham has, however, by a changed artificial cultural environment, succeeded not only in increasing the indol production of the colon bacillus, but also in causing typical typhoid bacilli to assume this function. Thus another of the tests upon which we relied for the differentiation of these two groups of bacteria is shown to be of questionable value. This holds true also for the agglutination reaction with blood serum from cases of typhoid fever, which has been imagined as an absolutely specific differential test. The author not only found a considerable number of typhoid cultures which failed to give the Widal reaction, but a number of cultures of colon bacillus responded perfectly to the serum test.

The temptation to use the imagination to complete

the chain of evidence regarding these two groups of bacteria is very strong in the face of results like those obtained by Dr. Peckham, though she is wisely non-committal. We can regard the common bacillus of the mammalian intestine as the specific type which, in its normal environment, the intestine, has all its functions, like fermentation and proteolysis, called into activity. With its discharge from the animal body in the stools, a change of food, of temperature, and of surroundings ensues, and in adapting itself to these changes certain functions are suppressed. Occasionally the colon bacilli are lodged in surroundings which favor that series of modifications resulting in the formation of the perfect typhoid type, and, through the medium of the water, once more obtaining access to the human intestine with such functions as fermentation, etc., suppressed, and with an accentuated virulence imposed by its sojourn under saprophytic conditions, it induces the dread disease—typhoid fever! Such is the picture the imagination draws when stimulated by the suggestions carried in almost all the work which has been done on these bacteria. If this were the case it would offer an easy explanation of many outbreaks of typhoid fever, and it would furnish a rational and convincing argument against sewage contamination of any kind.

A. P. O.

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### Among Our Exchanges.

One of the simplest and apparently most feasible methods of producing effective extension and counter extension in fractures of the *humerus* is that used for many years by DR. W. T. AIKINS, of Toronto, Ont.<sup>1</sup> The material of the splint is ordinary hoop iron, from one inch wide for young children to two inches wide for large adults, intermediate widths being used for larger children or small adults. The iron can be readily shaped by hand or by a couple of monkey-wrenches or pairs of pliers. A twisted arch is formed over the top of the shoulder, the anterior limb reaching from eight to twelve inches downward over the front of the chest and in the direction of the umbilicus. The posterior limb follows the back of the arm downward to about an inch below the point of the elbow, where the iron is again bent at a right angle and somewhat inward, so as to support and fix the forearm in the proper direction toward the median

<sup>1</sup> Montreal Med. Journal.

line of the body. The posterior limb of the splint being longer than the humerus, when the arch is strapped to the shoulder, bringing the forearm down to the horizontal limb stretches the humerus to its fullest extent. After the splint has been coated with melted paraffin to render it aseptic, and after it has been well padded, it is placed with the arch over the shoulder, and the arch and the thoracic limb are firmly secured to the body by strips of rubber adhesive plaster. A splint moulded to the upper part of the forearm is carefully padded, and with it the forearm is firmly bound down to the horizontal arm of the splint. If indicated, short coaptation splints may be applied over the fracture. The splint is light, cool, affords ready means of examining the parts during healing with but little disturbance, permits the direct application of evaporating lotions or the cold coil where indicated, or in case of compound fractures affords ready access to the wounds and withal provides better than any other splint for the constant and effectual extension of the muscles of the arm. The disadvantages attending the *Whitehead* and the *American* operations for *piles*, viz., contraction of the rectum, incontinence of feces, and the loss of the special sense residing in the rectal papillæ whereby warning is given of a fecal mass to be evacuated, and inconvenience caused by the absence of the normal lubricant secreted by the lower rectum, have prompted conservative operators to seek for some method of getting rid of the hemorrhoids without leaving the patient worse off than before. An operation devised by DR. DAVID WILLIAMS, of Columbus, O.,<sup>2</sup> affords promise of solving the difficulty in a large number of cases. The object sought in his operation is to shorten the mucous membrane of the rectum in such a way as not to destroy the tactile or secretory organs just within the anus, nor leave a cicatricial band above to contract and produce stricture. After the usual preparation and dilatation of the sphincter, about an inch of the diseased tissue well above the verge of the anus and the organs there located is caught with a tenaculum and drawn into the jaws of the "T" forceps far enough to include the length of tissue which the operator desires to remove. The forceps are held so that the jaws lie in the direction of the circumference of the gut, and it should be always borne in mind that the part removed will be just double the length drawn into the forceps. When the forceps are firmly closed a catgut stitch is passed deeply into the tissues close to each end of the "T" and firmly tied. Three more sutures are passed between these two from above down-

<sup>2</sup> Columbus *Med. Jour.*, Aug. 3, '97.

ward around the "T" and well beyond the bite, leaving the ends long enough to tie easily. The tissue held in the forceps is then cut off close to the bite and the three sutures tied. By leaving the ends of the first two sutures long enough for the assistant to hold, the three sutures between are more readily tied. This process is to be repeated around the circumference of the gut as many times as may be necessary to remove redundant tissue, remembering to leave at least a half inch of undisturbed tissue between bites, and to take each bite a little above, or a little below the last one, so that the cicatrices shall form a broken, not a continuous line about the rectum. This precaution very much lessens the risk of subsequent contracture. Not more than one-third of the varicosity need be removed. If that much be excised the rest will disappear. There is but little loss of blood, and if a "spouter" continue to bleed after the sutures are tied one extra stitch is all that is needed. The rectum is dusted with iodoform, packed with iodoform gauze, and treated as is customary after rectal operations. In operations for *fistula in ano*, likewise, whenever it is possible to avoid cutting the sphincter we may hope for a far more satisfactory result. DR. N. H. HENDERSON, of Chicago,<sup>3</sup> attains this object by the following procedure: After the usual preparation and dilatation of the sphincter a probe is introduced into the sinus to locate its course and the internal opening. An incision about one inch long and one-half to three-fourths of an inch deep is made on each side of the external opening, but not through the sinus. These incisions run parallel with the fibers of the sphincter, but care should be taken not to wound the muscle. The end of the sinus is grasped with the forceps, and with a scissors or dull spud the whole sinus is dissected out intact. The external sphincter is then everted, the internal opening brought down, and the membrane carefully approximated with fine catgut. A deeper stitch, including the field just closed, effectually occludes the inner opening. The external wound is now washed and closed with a few stitches of silkworm gut, a bit of gauze being placed between two of the stitches for drainage. Even if there be more than one sinus, this operation is not contraindicated, for the sphincter arises as it does from the top of the coccyx by a narrow, tendinous band, and being inserted into the tendinous center of the perineum, can be loosened from perineum to coccyx to dissect out sinuses beneath it, without impairing the function of the muscle. If it be divided at all, it should be done on the posterior median line where the

<sup>3</sup> Mathews' *Jour. Rect. and Gast-Intest. Diseases*, Oct., '97.

fibers come together to form a tendinous attachment. This done, the muscle can be laid bare, the sinus dissected out and the muscle returned and stitched to the proper place. While more tedious than the simple cutting operation, DR. HENDERSON finds that this procedure amply repays the extra trouble.

Regarding *nervous headache* as ordinarily an auto-intoxication from the absorption of the products of gastric and intestinal fermentation, and finding by experiment that the germs that infest the stomach do not thrive in the juices of fruits, DR. J. H. KELLOGG, of Battle Creek, Mich.,<sup>4</sup> has been treating such cases for some time without medicine, keeping them simply on a diet of fruit only. He finds that the thickly coated tongue becomes clean and that the headache and the extreme nervous exhaustion are relieved almost immediately in a very large number of cases. It may be that in treating the *vomiting of pregnancy* we have been in the habit of depending too much on drugs. At least, DR. CHAS. E. PAGE, of Boston, Mass.,<sup>5</sup> maintains that in many, if not most cases, withholding food and giving water simply till natural appetite returns will relieve the symptom. At the first indication of nausea the patient is directed to fast, sipping a few swallows of moderately hot water from time to time. Usually after skipping a couple of meals normal hunger has returned and light diet can be tolerated. If it be necessary to fast two or three days no harm will result. Of course there are no universal rules, but in cases where the vomiting can be traced to reflex action of a nervous kidney or to over-indulgence in rich foods, the method would seem to have no little merit. The fact that ether by the mouth or subcutaneously increases the flow of urine, strengthens the pulse and tends to calm respiratory spasm has led M. LEMOINE and M. GALLOIS to use it as a remedy in *uremia* due to acute nephritis or acute renal congestion.<sup>6</sup> Every half hour or hour, according to the case, two or three teaspoonfuls of ether are given in a little sweetened water, which dose is replaced about every three hours by a subcutaneous dose of from thirty to forty-five minims. It should be borne in mind, however, that ether is without effect in the *uremia* sequent upon the slow disorganization of the kidney by arterio-sclerosis. Following the suggestion of DR. SANGER, of Magdeburg, DR. CHAS. HERWERSCH has been giving the fluid extract of *hydrastis canadensis* an extensive trial as a remedy in the coughs of *chronic bronchitis* and *phthisis*.<sup>7</sup> The dose for adults is 10 drops on sugar

<sup>4</sup> *Modern Medicine*, July, '97.

<sup>5</sup> *Med. Times*, Oct., '97.

<sup>6</sup> *Nord Medical*, Sept. 1, '97.

<sup>7</sup> *Philadelphia Polyclinic*, Oct. 9, '97.

four times a day, increasing to 25 drops. The patients soon get used to the bitter taste, and in most cases, except in those of phthisis where the cough was due to other than bronchial causes, the cough soon ceased to be harsh, the expectoration became more liquid and gradually diminished. With older patients smaller doses were used (10 to 15 drops), as larger doses seemed to depress the heart. Nine-tenths of the cases of chronic bronchitis were decidedly benefited, but the remedy could not be used continuously for more than three or four weeks at a time, as the stomach became deranged if it were continued longer. At first there was a decided increase of appetite.

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### New Books.

**ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES AND ANALYTICAL INDEX. A**  
Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Charles E. Sajous, M. D., Paris, and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chrome-lithographs, engravings and maps. In five volumes. 1896. The F. A. Davis Company, Philadelphia, New York, Chicago; Australian Agency, Melbourne, Victoria.

We have reviewed the annual issues of this great work since its first appearance in 1888. It was recognized at the beginning as a very large undertaking, better executed than one would have thought possible where the labors of so many editors, corresponding editors, collaborators, and correspondents, located in so many different places and working in so many different languages, must be utilized in a given short time. No one but a very able editor with unusual talent for this kind of work and an indefatigable will, together with a liberal publishing house, could have ever brought it to pass. The reader who has no experience of editorial work or publishing enterprises can hardly appreciate the full truth of these statements. Each year since the first has shown improvements in the Annual in some particulars, and we believe the issue of '96 will prove more valuable to the subscriber than any of its predecessors. Probably the most distinguishing feature of the issue of '96 is the "Analytical Index and Cyclopedia of Treatment," which occupies 350 pages of Volume V. This is the work of Dr. Sajous himself, with his special corps of immediate assistants. This index and cyclopedia gives a summary of each article quoted in the body of the Annual and of each comment thereupon by the associate editors—the double-distilled

quintessence of the world's medical literature for one year, in a space so small that a few evenings' reading will cover the whole. The matter is so arranged with reference marks that if the reader is interested in a certain thought or fact the fuller account in the body of this work can be readily found and perused. This feature we do not remember to have ever seen attempted before, and it should be, and we think will be, duly appreciated by the reader who is anxious to keep up with medical progress and yet cannot find the time to do it. And this leads us to say that it will not do, even for the specialist, to attempt to keep pace only with the advances in his own department. No part is equal to the whole, and no department of medicine is complete without reference to its relations to the other departments—to medicine as a whole. No specialist can be all he should be, even in his own department, without keeping posted, to some extent, with the progress in the other branches, and the only possible way for him to do it is by using such a work as this. Therefore the Annual is not only a necessity for the general practitioner, but for the specialist in any branch of medicine.

We note, also, some other improvements in the issue of '96. For instance, there are more colored plates, and some of them are such as will excite the admiration of any lover of the engraver's art, even though he be a *connoisseur* and somewhat critical. Then, all the therapeutic subjects are in one volume—the fifth—so that it can be kept on the doctor's desk for ready reference. The prescriptions are written out in usual form, instead of being "run in," as the printers call it; that is, like ordinary text; and there are other changes. Taken all together, the last issue seems to be quite the best of an excellent series.

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A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE.

By Robert W. Taylor, M. D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one handsome octavo volume of 448 pages, with 73 illustrations and eight plates in color and monochrome. Cloth, \$3.00, net. Lea Brothers & Co., New York and Philadelphia.

The subjects treated in this book have been left too much in the hands of the quacks, on the one side of us, and of the lay moralists on the other. Medical men have dealt with venereal diseases in practice and recorded their opinions upon them in books (Dr. Taylor himself has a "Pathology and Treatment of Venereal Disease"), but of the numerous disorders of the sexual functions many have rather hazy ideas, gathered from scattered observations of

symptoms without a very definite knowledge of their etiology and pathology. It is along the lines of anatomy, physiology and pathology that the author has made his studies, with the result of banishing several visionary theories which would not stand the logic of facts. The prostate gland receives a great deal of attention; also the seminal vesicles, and upon these subjects the author presents much that is new to us, based on his own investigations. We cannot particularize upon the various points, but consider the new work highly scientific in its methods and very practical and sensible in its teaching, and no one who procures it will be disappointed.

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AN EPITOME OF THE HISTORY OF MEDICINE. By Roswell Park, A. M., M. D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo. Illustrated with portraits and other engravings. Philadelphia, New York, Chicago: The F. A. Davis Company, 1897.

We quite agree with Dr. Park in his opinion that "the history of medicine has been sadly neglected in our schools," though we are not quite willing to accept the statement of the dedication of this book, which calls it the "first attempt in the medical schools of this country to give systematic instruction in the science which they teach." However, we are glad to see another impulse given to the study of medical history, which study if rightly pursued will not only give our students and physicians a more profound veneration for our science and art, and a more philosophical understanding of them, but will prevent a great waste of energy in the threshing over of old straw, and the presentation of wonderful new theories and practices which are wonderful and new only to the unlearned. We welcome, too, this epitome, which is not too large for a winter's course. Baas' "Outlines of the History of Medicine," the best of the modern works, looks rather large to the medical student, though he will not find it too extensive for a satisfactory study of the subject; and the same may be said of Renouard. (By the way, Baas was translated into English by Handerson — not Henderson, as stated in Dr. Park's book — Dr. H. E. Handerson, of Cleveland). Bouchut, Portal, Sprengel and Hirsch are in foreign languages, and until now we recall nothing very meritorious which is brief since Richard J. Dunglison's "History of Medicine," which came out in 1872, and is now out of print. As might have been expected, Dr. Park has done his work well. He has chosen the material judiciously, considered it philosophically, and presented it classically. The portraits copied from the collection of Dr. Joseph H.



Hunt, of Brooklyn, and the engravings from some of the rare old works in the Library of the College of Physicians of Philadelphia, add greatly to the interest and value of the book.

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THE DIARY OF A RESURRECTIONIST, 1811-1812. To which are added an account of the Resurrection Men in London, and a short history of the passing of the Anatomy Act. By James Blake Bailey, B. A., Librarian of the Royal College of Surgeons of England. London: Swan, Sonnenschein & Co., Limited, Paternoster Square. 1896.

This is a publication of great interest and considerable importance to the student of medical history. The author has used to good advantage the opportunities which his position afforded him, and has given us the benefit of his researches. Although the "Diary" proper occupies only 37 of the 184 pages of the book, it is sufficiently ghoul-ish to satisfy any lover of the gruesome. There can be no doubt of its authenticity. The remainder of the book gives a great amount of information on the subject of body-snatching in London, the state of the study of anatomy in the early part of the century, etc., with extracts from the papers and periodicals of that time, and illustrations, all explanatory of the diary itself. The author describes the conditions which led up to the passage of the Anatomy Act, and the circumstances surrounding that important legal event. The paper and presswork are beautiful and the binding neat enough to please the most fastidious.

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ABOUT CHILDREN: Six Lectures given to the Nurses in the Training School of the Cleveland General Hospital in February, 1896. By Samuel W. Kelley, M. D., Professor of Diseases of Children in the Cleveland College of Physicians and Surgeons (Med. Dept. Ohio Wesleyan Univ.); Pediatricist to the Cleveland General Hospital; Consulting Physician to the Cleveland City Hospital; President, 1896 and 1897, Ohio State Pediatric Society; Editor *Cleveland Medical Gazette*. 180 pages. Price, in buckram, postpaid, \$1.25, net. Cleveland: The Medical Gazette Publishing Company, 1897.

This book occupies an important field, and does it well. No other book, so far as we know, has ever attempted just this task. There is nothing of any practical value peculiar to juvenile life which is lacking in Professor Kelley's lectures, so charmingly written. In fact, there is a wealth of information and suggestion of which the thousands engaged in the care and management of children can and should avail themselves. To the physician, the nurse, and the intelligent parent, we commend these lectures most cordially, and bespeak for them a wide circle of readers.

I. C. C.

LOUIS KUHNE'S FACIAL DIAGNOSIS. Enables us to Foresee and Forestall all Future Ailments. Translated and with notes by Aug. F. Reinhold, M. D. Illustrated. Published by the translator. New York: 1897.

The translator of this remarkable importation from the native land of homeopathy and Kneippism promptly shows his colors in a frontispiece. This is an advertisement of a water-cure establishment in which he is the presiding genius, and the same page bears the following motto: "Any man who pretends to heal by means of drugs and operations does not possess even rudimentary knowledge of the nature of sickness, nor of its cure."

In the preface he modestly opines that "this little book, by reason of the conciseness and completeness with which the subject is treated, no less than the revolution its appearance must make in existing methods of diagnosis and treatment of disease, is undoubtedly destined to a place among the classics of science. As the exclusive work of one man, it is an immense achievement. Such forms of disease as cancer, consumption, blindness, etc., which have heretofore been considered utterly incurable, and are possible of treatment only after they have gained considerable hold upon the system, can, by Louis Kuhne's method of facial diagnosis, be readily and effectively treated at any stage, even *previous* to their definite development."

This reminds us of a story of Ralph Waldo Emerson, who had a friend who always carried in his pocket a horse-chestnut as a preventive of rheumatism. Emerson satirically testified as follows to the efficacy of the treatment in his friend's case: "He has never had the rheumatism since he began to carry it; and indeed it appears to have a retrospective operation, for he never had it before."

As might have been expected, the author asserts that this method of diagnosis is really an auxiliary of the great "Natural Science of Healing by Water. . . . Mental disorders, also, and those dreaded forms of disease, cancer, consumption, paralysis, as well as deafness, blindness, etc., have all succumbed, at last, to the treatment made possible by this unfailing system of diagnosis." All the usual methods of diagnosis are declared unnecessary, useless, or positively pernicious. After a deal of such introductory rubbish and numerous assertions of the skill and success of the author and the translator, we come to the method itself. This is a sort of reincarnation of the theory of humoral pathology; and the diagnosis is to be made by observing various thickenings about the face and neck particularly, and body generally, which are called Front Encumbrance, Side Encumbrance, Back Encumbrance, etc. Probably the reader has had enough of this absurdity. We have seen nothing

so nonsensical since the days of Wilford Hall. Patent-medicine almanacs are sensible and scientific in comparison, and while they can be had for nothing, we would not advise our readers to pay a dollar for this book.

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#### PAMPHLETS RECEIVED.

SYLLABUS OF LECTURES, Western Reserve University, to be given in the Board of Education Rooms, No. 190 Euclid Ave., by Robert MacDougall, Ph. D., Associate Professor of Pedagogy in Western Reserve University, and Leigh K. Baker, A. M., M. D., Supervisor of Physical Training in the Cleveland Public Schools. Cleveland, 1897-1898.

ESSAY ON A RELIABLE AND HARMLESS WAY TO DIMINISH AND CURE OVERFATNESS. By William T. Cathell, A. M., M. D., of Baltimore. From *Maryland Medical Journal*.

INJURIES RECEIVED BY THE CHILD DURING BIRTH, AND THEIR PREVENTION. By F. S. Clark, A. M., M. D. FROM THE CLEVELAND MEDICAL GAZETTE.

PELVIMETRY: ITS VALUE IN OBSTETRICS. By F. S. Clark, A. M., M. D., Visiting Physician to St. Alexis Hospital and Assistant in the Department of Obstetrics and Diseases of Children in Western Reserve Medical College. From *Annals of Gynecology and Pediatrics*.

THE NATURE OF THE LEUCOCYTOSIS PRODUCED BY NEUCLEINIC ACID. A PRELIMINARY EXPERIMENTAL STUDY. By Delano Ames, A. B., M. D., Lecturer on Pathology and Director of the Pathologic Laboratories in the Baltimore Medical College; Pathologist and Visiting Physician to the Maryland General Hospital, etc., and A. A. Huntley, M. D., Assistant Demonstrator of Pathology in the Baltimore Medical College. From *Journal American Medical Association*.

ON THE CAUSE AND TREATMENT OF THE URIC ACID DIATHESIS. By N. A. Olive, M. D. A paper read before the Central Medical Association of Texas, with the general discussion thereon, and upon the uric acid theory of the causation of ASTHMA. From *Texas Medical Journal*.

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#### Society Reports.

##### CUYAHOGA COUNTY MEDICAL SOCIETY.

The regular meeting of the Cuyahoga County Medical Society was held October 7th, Dr. W. C. Weber presiding.

A committee was appointed to confer with the Public Library Board with reference to provision for a place of meeting for scientific societies in the new library building.

On the regular program, DR. N. STONE SCOTT, under the caption of "Foreign Bodies Within the Body," reported two cases in which the X-ray had been used as a

means of diagnosis. The first was a child who for three months had been suffering with vesicle symptoms that led to suspicion of stone. The X-ray revealed a calculus, which was removed by suprapubic cystotomy. The picture and specimen were exhibited to the society. The second case was that of a child in a neighboring town supposed to have lodged a grain of corn in the windpipe. By manipulation a grain of corn had been dislodged, but the dyspnea and coughing continued. The question of whether a foreign body still existed within the air passage, or whether the persistence of the symptoms was due to irritation produced by the dislodged grain, was settled by the X-ray revealing a kernel of corn in the left bronchus. The trachea was opened and swabbed. The coughing induced finally brought the kernel to the opening, from which it was removed.

DR. BUNTS considered the X-ray a valuable means in diagnosis, citing a case of a child supposed to have lodged a melon seed in the trachea. In diagnosing stone he considered sounding a positive method, and to be preferred on account of injuries liable to occur in using the X-ray. Drs. Sawyer, Herrick and Weber also cited cases in which the X-ray would have been a valuable means of settling the diagnosis. Dr. Scott admitted that injuries have occurred in the use of the X-ray. The injuries affect the skin usually, a brown induration occurring first, with a slough coming on later. The ulcers formed are very indolent, resembling trophic ulcer, and skin grafts are not successful in these injuries. Of the injuries reported, one-half have occurred to experimenters in laboratories. Of the other half, in nearly every case the error in technique has been apparent; either the exposure has been too long or the distance too short, or some other equally patent fault appears. An exposure for one hour at a distance of 12 inches is a maximum exposure.

DR. HANSON presented a paper on a case of ectopic pregnancy. Ectopic pregnancies as a rule are primarily tubal. But one case of undoubted primary abdominal has been reported. In primary tubal pregnancy, with the placenta attached to the upper internal surface of the tube, rupture downward may take place without serious hemorrhage, and the fetus develop in its new location, but in a few weeks the danger from rupture is as great as before rupture of the tube. The case in question was a German woman 28 years old, strong and healthy, who had not been pregnant for ten years. She complained of continuous pain in the lower part of the abdomen and had not menstruated for nearly four months. Examination revealed a uterus high up, normal in size, but crowded to the left side; at the right a globular, resilient mass, the

size of a cocoanut. The tumor could be moved without moving the uterus and vice versa. An abdominal pregnancy was diagnosed, based upon the facts (1) that the tumor was distinct from the uterus and (2) that there was no history of rupture. On account of danger from rupture, immediate operation was advised but refused. Four months later the woman was doing housework as usual. Examination showed a tumor outside the uterus containing a vigorous child. Counsel was called and the same advice as to operation given, but again refused. The case fell into the hands of two other physicians, who reported a pregnancy with "everything all right." Later a third physician diagnosed a double uterus with a pregnancy existing in one, but after exploring the uterus with a sound, under anesthesia, changed his diagnosis to a "normal uterus containing a child." Still later the patient was removed to a homeopathic hospital and a living child removed from the broad ligament, the placenta being attached to the posterior wall of the pelvis. The mother died, but the child is still living.

DR. H. J. HERRICK spoke of hematocele of older authors now being diagnosed as ruptured tubal pregnancy. He was of the opinion that hematocele was not always a ruptured tubal pregnancy, but occurred in certain conditions of venous circulation in the pelvis. A number of years ago he had met with a case of what was termed missed labor. At what was supposed to be term the woman had passed through pains of labor without delivery. Months later a mass, evidently the remains of a fetus, was taken from the uterus.

DR. HART had met with a case of suspected ectopic pregnancy. The woman gave history of paroxysmal pains recurring every two weeks, increasing in severity. A mass was felt outside the uterus. Operation was refused. The pains finally subsided and the mass disappeared.

DR. SCOTT said that according to Lawson Tait all ectopic pregnancies began in the tubes.

DRS. DUTTON and TUCKERMAN each cited cases in their experience of labor pains having come on without delivery and later pelvic tumors being found.

DR. HANSON closed the discussion, recapitulating the points on which he made the diagnosis of abdominal pregnancy. He believed that hematocele was always due to ruptured tubal pregnancy.

J. C. McM.

## Correspondence.

CLEVELAND, October 15, 1897.

EDITOR GAZETTE:

While enjoying the perusal of Dr. Clark's able article on "Injuries Received by the Child During Birth, and their Prevention," in the August number of the GAZETTE, it struck me as peculiar that no mention was made of intra-spinal hemorrhage as a recognized cause of infantile mortality.

Some years ago I was convinced by a limited number of autopsies of cases where difficulty was experienced in extracting the after-coming head, that vertebral hemorrhage was comparatively frequent.

Schaeffer (*Archiv für Gynäkologie*, 1897, Band liii., Heft 2) reports some interesting studies based upon 100 autopsies upon new-born infants. He found that, while cerebral hemorrhage was present in 20 per cent. of the cases examined, spinal hemorrhage was found *once in every ten cases*. If Cruveilhier was correct (as Dr. Clark quotes him) in assuming that one-third of the deaths of infants during parturition were due to cerebral hemorrhage, then, granting the accuracy of Schaeffer's observations, one-sixth of all such fatalities are accompanied by intraspinal extravasation of blood. It is also of interest to note that in 17 of his cases of vertebral bleeding 41 per cent. followed the use of forceps or difficult extraction in breech presentation. Schaeffer also records an observation on the extreme liability of premature children to suffer birth injury. As a predisposing factor, it is equally important with some others mentioned in the paper.

There are few things more mortifying than to stand in the presence of the sorrowing mother of a fine large child that you have recently delivered, and have your attention directed to its paralyzed and useless arm.

True, Dr. Clark touched upon this important subject of brachial nerve injuries, but of the most pregnant part he failed to tell us — *how to avoid such an unfortunate result*. Erb (Ziemssen's Cyclopedia of the Practice of Medicine, vol. xi., p. 561) says it is especially due to the energetic application of the so-called "Prague Grip," in which the fingers of the accoucheur are applied like a fork over the back of the neck, thereby endangering the integrity of the brachial plexus or cervical nerves thereto contributing, both by energetic traction and by compression. Ill-advised traction on the arm, head, or in the axilla may produce a like result, but when we consider that it may be bilateral and that 75 per cent. of Starr's cases were sinistral, it seems that his following clear statement is

not the explanation of a coincident. Starr says: "It is the pressure of the obstetrician's fingers which causes the injury in the majority of cases, and I have noticed that in 75 per cent. of the cases seen the paralysis was in the left arm, which finds its explanation in the greater length of the middle finger of the hand which is doing the damage. In the act of traction there is a tendency for the obstetrician to flex the fingers, and thus the tip of the finger is pressed deeply into the side of the child's neck." *The cause being thus evident, the complicating affection may be avoided by a little care.* (The italics are my own).

It is far easier to commend than to criticize, but to be honestly critical with no motive but love of accuracy and completeness in the knowledge that lends dignity to our beloved profession is laborious and far from being captious.

Sincerely,

CHARLES J. ALDRICH, M. D.

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### Notes and Comments.

**Dedicated.** The beautiful music hall of the State Hospital in Newburg was dedicated with appropriate ceremonies on Tuesday evening, September 28th. The attendance was light, being made up principally of the attendants of the hospital and a few friends, the distance from the center of the city probably accounting for the limited attendance.

Superintendent Eyman presided over the ceremonies, and short congratulatory speeches were made by Mayor McKisson, General Brinkerhoff, of the State Board of Charities, who has been well known through his connections with the insane asylums of the state for forty years; Rev. Dr. W. A. Hale, of Dayton, another member of the State Board of Charities, and Governor Bushnell.

Music was furnished by the hospital orchestra, assisted by Miss Florence Etton and Mr. Joseph P. Byers.

The corner-stone of this new addition to the facilities of the State Hospital was laid about a year ago. The whole cost of the structure was about \$25,000. Some of its best features are rooms for the night attendants, where they will not be disturbed during the day, and a school-room, also for the attendants.

**Dr. Dudley P. Allen**, in a column and a half interview in the *Plain Dealer*, gives his impressions of Juneau, Skagway and Dyce, all of which places he visited during his Alaskan trip. The outlook in that region is roseate only for the doctors.

**Apropos.** "Ah, Mr. Billson, home again? You are such a prodigal we really ought to kill the fatted calf for you."

"Speaking of fatted calves, Miss Elderkin, how stout you do look in that short bicycle skirt."—[*Plain Dealer*.]

**Dr. C. G. Foote** spent the month of September in a trip about the picturesque shores and islands of Georgian Bay.

**Dr. C. W. Stoll**, W. R. U., 1893, and wife, of Dover, stopped over in Cleveland a short time the last of September on their way to Vienna, where the doctor expects to work along special lines.

**Dr. Allison**, formerly of Lakeside Hospital and now located at Chicago Junction, O., visited in the city September 25th.

**Dr. E. G. Carpenter** says that parlor cars are not always what their name signifies. A Pennsylvania locomotive recently poked its nose into the parlor car which he occupied, but the doctor escaped without material injury.

**The Marine Hospital** lost a part of its outer roof in a storm recently, the accident entailing a loss of several hundred dollars. Some years ago a new roof had been superimposed upon the old, and the wind getting under this lifted off a portion.

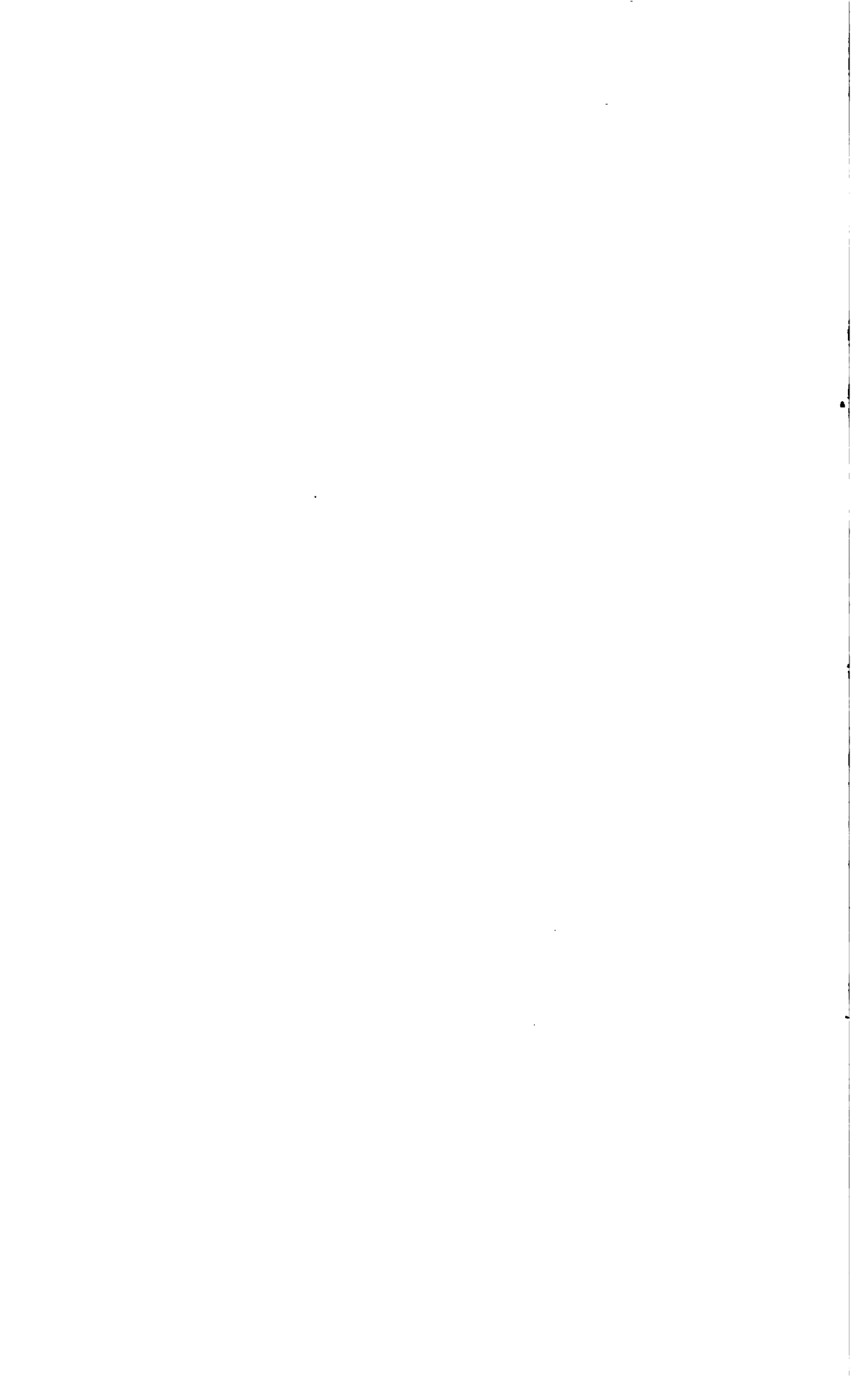
**Dr. Ralph J. Wenner** was married on October 19th to Miss Adella Hollinger, of Sandusky. They reside at "The Rosalind," on Handy street.

**Dr. Emil J. Rose** has removed from Scovill avenue to the corner of Willson and Central avenues, and now occupies the former residence and office of Dr. C. C. True.

**Dr. William A. Hosick** and Miss Millie Rowley, of this city, were united in marriage on the 20th of October, and will make their home at 503 Lincoln avenue.

**The Annual Meeting** of the Association of Surgeons of the Pennsylvania Railroad Lines was held in Zanesville on October 12th. There was an attendance of about thirty, and after several excellent papers the following officers were elected: President, Dr. E. C. Brush, Zanesville; vice-presidents, Dr. G. W. Thompson, Winamac, Ind., Dr. S. A. Graham, Waynesville, Ill.; secretary, Geo. C. Stemen, Ft. Wayne, Ind. Executive committee, Dr. N. P. Howard, Greenfield, Ind.; Dr. Neil Hardy, Massillon; Dr. E. C. Taylor, Kalamazoo, Mich. The next meeting will be held in Cleveland.





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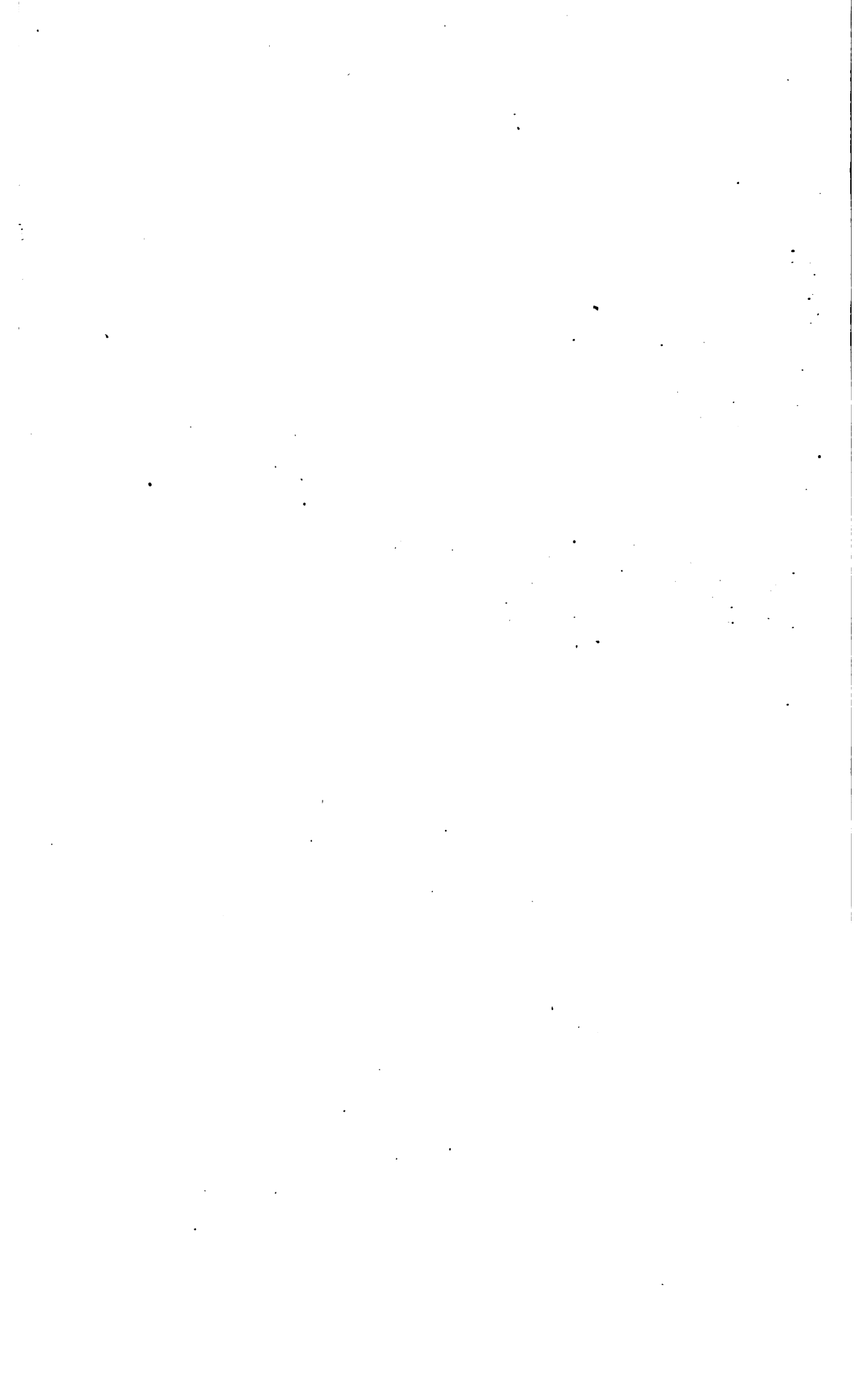
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